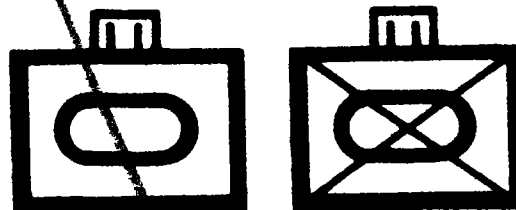


13.
000
Army
77
A

**THE TANK AND
MECHANIZED
INFANTRY BATTALION
TASK FORCE**



FM 71-2

Pentagon Library (ANR-PL)
ATTN: Military Documents Section
Room 1A518, Pentagon
Washington, DC

FMS	AUTHOR <i>Replacement card</i> 71 - 2
TITLE	<i>Jun 1977</i>
<i>Cy 2</i> DUE NAME <i>DePre</i> <i>A. PAULUS</i>	

Please do not write on this card

Do not write on this card

Field Manual

No. 71-2

Copy 2

SK 27 Sept 1988

Unclassified/limited/US60
filed Next Door
in Army Studies

FM 71-2*

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, DC, 30 June 1977

THE TANK AND MECHANIZED INFANTRY BATTALION TASK FORCE

PREFACE

THE BATTALION TASK FORCE is a combination of tank and mechanized infantry companies and other units grouped under command of the headquarters of a tank or mechanized infantry battalion. Frequently, attack helicopter units may operate with the battalion task force, which will normally be supported by field and air defense artillery. Sometimes it's supported by USAF tactical fighter bombers. A wide range of engineer, signal, and logistics support is available and may, from time to time, be part of the battalion task force. The battalion task force is then a combined arms team. This manual describes how the battalion task force fights. In doing so, it discusses employment of company teams which may be part of the battalion task force. For additional details about how company teams fight, the reader should use FM 71-1, *The Tank and Mechanized Infantry Company Team*.

The battalion task force fights as part of a brigade. The brigade is a combination of tank and mechanized infantry task forces and other units grouped under command of a brigade headquarters. How the brigade fights is described in FM 71-100, *Brigade and Division Operations (Mechanized/Armor)*.

To fight successfully in modern battle, the battalion task force must accomplish several basic tasks. These tasks are common to all combat operations, and are so important they must be discussed briefly before describing how the task force fights.

The first battlefield task the battalion task force must perform is to SEE the enemy and the battlefield, to SEE them better than the enemy does so the task force has the advantage—gets the drop on the enemy.

*This publication supersedes FM 17-1, 14 October 1966, including all changes, and FM 17-15, 25 March 1966, including all changes.

Pentagon Library (ANR-PL)
ATTN: Military Documents Section
Room 1A518, Pentagon
Washington, DC 20310-6050

In order to see the enemy, it will be necessary to MOVE. The task force MOVES to SEE and MOVES to fight. For when fighting outnumbered, which the task force must expect to do most of the time, it will be necessary to MOVE to mass sufficient force to accomplish its mission.

In order to *move* and *see* and *move* and *fight*, it will be necessary for the task force to *suppress* enemy weapons that can interfere with the task force's ability to accomplish its mission. Direct and indirect fires must be organized and employed in such a manner that sufficient SUPPRESSION is provided to enable the battalion task force to move.

In order to accomplish its mission, it will be necessary for the task force to *destroy* enough of the enemy to convince him to break off his attack, to give up a defensive area, or to move away from an area vital to friendly forces.

To *see*, *suppress*, *move*, and *destroy* requires effective command control. The battalion task force is equipped with communications equipment that will enable the commander to control the maneuver and fires of his forces. This equipment, however, is extremely vulnerable to enemy countermeasures, and Threat forces are well-equipped and trained to conduct electronic countermeasure operations. Therefore, tight discipline and imaginative control alternatives must be employed by the task force commander to insure positive control at all times. Finally, the battalion task force must be supported with combat support, and with the sinews of war—that is, the fuel, ammunition, and maintenance support necessary to keep the battalion task force *seeing*, *suppressing*, *moving*, and *destroying*. Careful organization and aggressive operation of support activities are essential to task force operations. The purpose of this manual is to describe how the battalion task force fights—how it conducts operations to *see*, *suppress*, and *move* to *destroy* the enemy, and how it maintains control and supports itself in battle.

THE TANK AND MECHANIZED INFANTRY BATTALION TASK FORCE

Table of Contents

	PAGE
	Preface i
CHAPTERS:	
	1. The Battalion Task Force on the Modern Battlefield 1-1
	2. The Enemy in Modern Battle 2-1
	3. Organization and Operation of a Battalion Task Force.. 3-1
	4. Offensive Operations..... 4-1
	5. Defensive Operations 5-1
	6. Reconnaissance and Security 6-1
	7. Combat Support 7-1
	8. Combat Service Support 8-1
 APPENDICES:	
	A. Command, Control and Communications- Electronics A-1
	B. Warning, Operation, and Fragmentary Orders B-1
	C. Records and Reports C-1
	D. Breakout from Encirclement D-1
	E. Linkup, Passage of Lines and Relief in Place E-1
	F. Military Operations in Built-up Areas (MOBA) F-1
	G. Operations in Active Nuclear, Biological, or Chemical Conditions G-1
	H. Road Marches and Assembly Areas H-1
	I. Air Defense I-1
	J. Antitank Platoon J-1
	K. Prisoners of War and Captured Enemy Documents K-1

Table of Contents
(continued)

APPENDICES: L. Training the Battalion Task Force L-1
(continued) M. Functions of the Staff..... M-1
N. Symbols and Control Measures.....N-1
O. Relevant Standardization Agreements (STANAGS) .. O-1

CHAPTER 1

**The Battalion Task Force on the
Modern Battlefield**

OVERVIEW

DURING THE PAST SEVERAL DECADES, the nature of battle has changed—not abruptly, but nonetheless significantly. As a result, the modern battlefield presents challenges greater than the battalion task force commander has ever had to face. Recent wars and weapons development may well portend the nature of future wars:

PROLIFERATION—The major powers and client states have developed and fielded an unprecedented array of sophisticated weapon systems.

INTENSITY—Recent wars have demonstrated heretofore unknown intensity in terms of materiel and weapon systems losses over short time periods.

COMPLEXITY—The number of sophisticated systems that must be brought together to achieve the full measure of combat power has tremendously increased the complexity of battle.

DISTANCE—New sophisticated weapons have greater range and lethality than those of previous wars. As a result, the engagement will begin at distances far greater than has been the case in the past.

MOBILITY—With the increase in the proportion of armored and mechanized forces and the advent of the helicopter, mobility has greatly increased, facilitating the rapid concentration of forces.

TEMPO—The shorter duration of engagements and the resultant decrease in time to engage large numbers of highly mobile targets in enemy armored formations places a premium on well-trained, highly proficient crews and units.

To win on this lethal battlefield, the task force commander must skillfully apply his weapon systems. He must thoroughly

understand their capabilities and limitations and also understand battle dynamics. He must be able to concentrate his forces so that a favorable force ratio exists at the critical place and at the critical time. The history of armored battle tells us that this can be done. But, in order to do it, the task force commander must maximize his own weapons capabilities while at the same time minimizing their vulnerability to the enemy.

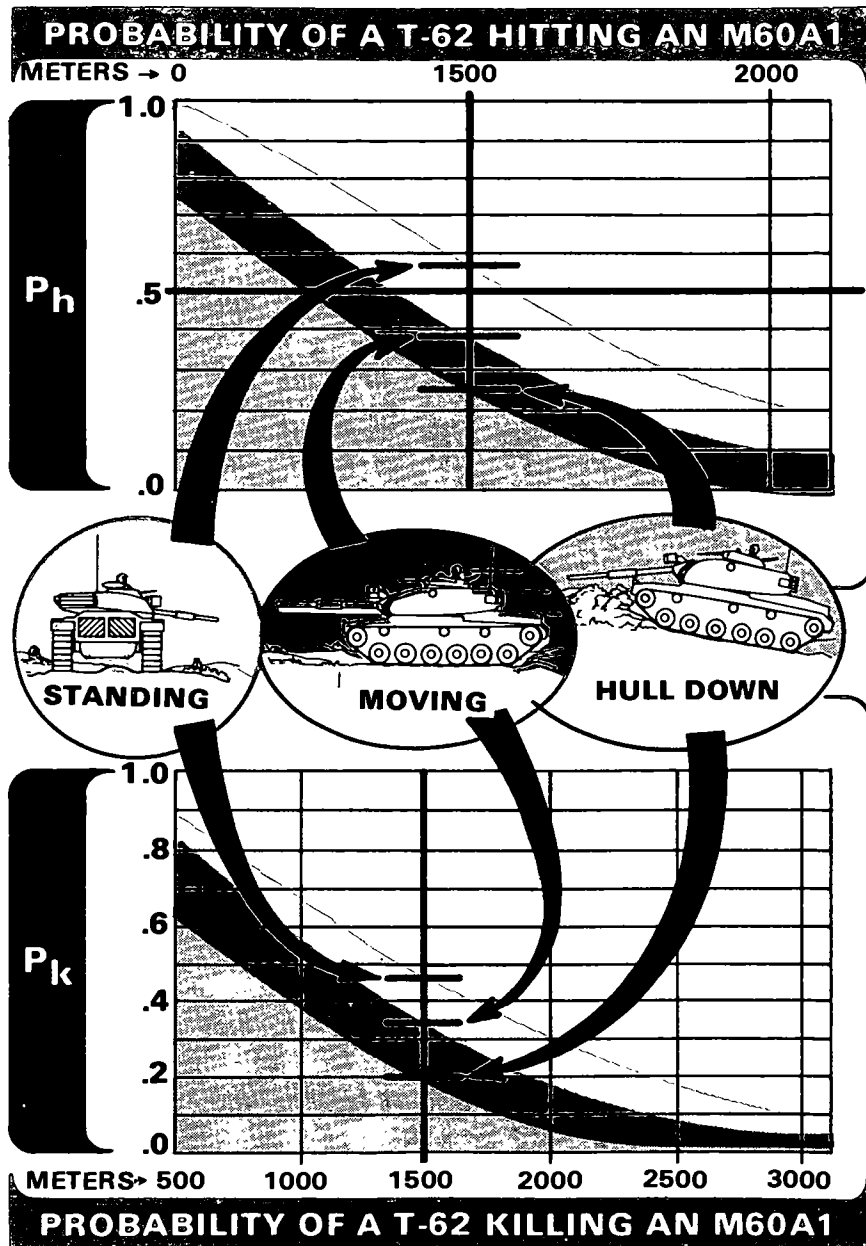
CONTENTS

	PAGE
OVERVIEW	1-1
MODERN WEAPONS CAPABILITIES	1-2
Tanks	1-2
Mechanized Infantry	1-4
Antitank Guided Missiles	1-5
Field Artillery	1-6
Mines	1-7
Air	1-8
Observation Devices	1-8
MOBILITY	1-9
SUPPRESSION	1-11
NUCLEAR, BIOLOGICAL AND CHEMICAL OPERATIONS (NBC)	1-13
COMMAND CONTROL	1-13
SUMMARY	1-14

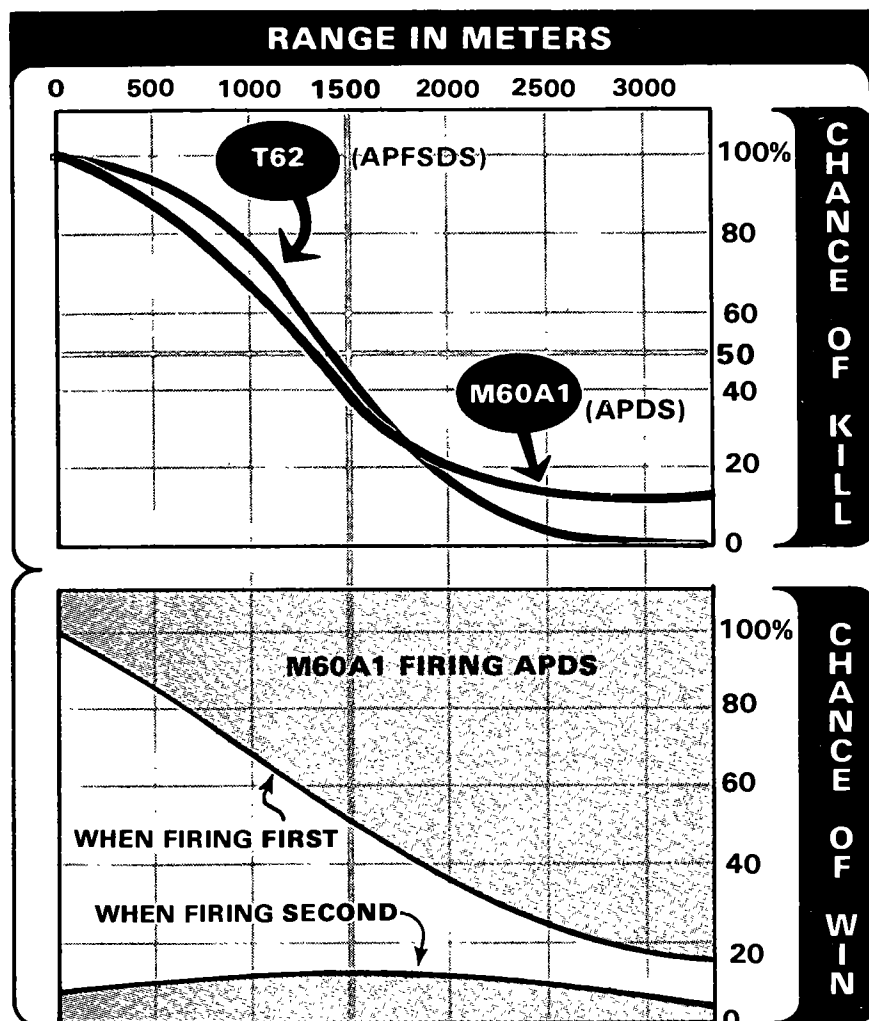
MODERN WEAPONS CAPABILITIES

Tanks—The tank with its cross-country mobility, its armor protection, and its formidable firepower, has been and is likely to remain the most important weapon in the battalion task force. The accuracy of tank guns gives them a high probability of a first round hit and the lethality is such that if the target is hit it will be killed.

A Soviet T-62 tank has a better than 50/50 chance of hitting an M60 tank standing in the open at a range of 1500 meters (about 1 mile), and just less than a 50/50 chance of killing it. However, if the M60A1 is moving at 12 mph, it is 25% less vulnerable. If it is hull down (so that all but the turret is behind cover), it is 50% less vulnerable. Thus, these charts dramatically illustrate to the battalion task force commander the importance of *demanding* that his tanks and APCs use hull down firing positions to the maximum extent possible.



It is important to remember that capabilities of US and Threat weapons are about equal. While one side may gain temporary advantage from materiel developments, the other soon offsets the advantage with similar improvements.



The probability of kill of the M60A1 and the T-62 are approximately equal. Therefore, any significant advantage must be gained by skillful tactics, sound training, and good leadership. For example, it is possible to gain a significant advantage by FIRING-FAST-FIRST. Statistics also show that good crews firing fast do not sacrifice accuracy. In a 60-second tank duel with both tanks stationary, a well-trained tank crew that FIRES-FAST-FIRST-ACCURATELY multiplies the chance of winning from two to nine times, depending on range.

The task force commander deals personally with these facts of life on the modern battlefield. He controls or supervises the employment of his armored elements. His teams must be employed to lessen their vulnerability by utilizing hull down and hide positions when defending. In the offense they must skillfully use the terrain to cover and

conceal movement. The task force commander must orchestrate suppression and obscuration to cover exposed elements that are moving to new positions or closing with the enemy. *The task force commander who fails to do these things and do them well will lose.*

***Mechanized Infantry**—Mechanized infantry plays an important role in the operations of combined arms forces on the modern battlefield. The infantry's mobility is sufficient to enable it to maintain the pace of highly mobile armored warfare and it is equipped with a broad spectrum of weapons ranging from highly sophisticated ATGM to rifles. Thus, the commander is provided with flexible forces capable of performing a wide variety of missions.*

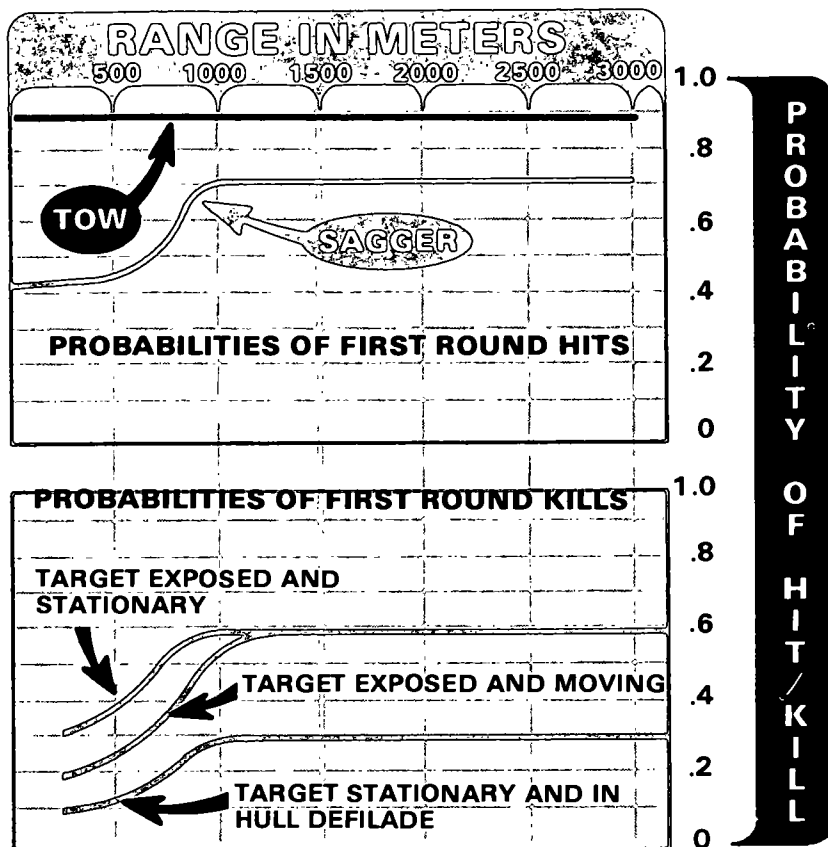
**MECHANIZED INFANTRY
PROVIDES HIGH DENSITY
ANTIARMOR SUPPORT AT
SHORT RANGES**

At short ranges, infantry can engage and destroy armored vehicles with LAW, RPG, and other similar weapons. Since the LAW is classified as a round of ammunition, US mechanized infantry can carry large quantities, providing them a great density of close-range antiarmor support. Other armies have likewise provided high densities of these type weapons. The Threat infantry has an antiarmor capability in its 73-mm cannon on the BMP. At longer ranges, mechanized forces have ATGM such as Dragon and SAGGER. These ATGM are highly effective when engaging both stationary and moving targets and their accuracy is largely unaffected by range.

Using the light and heavy machineguns on their carriers, mechanized infantry can kill or suppress dismounted infantry out to ranges of 1000 meters. US infantry is fully capable of fighting from their armored carriers while maneuvering, adding the suppressive fires of their automatic weapons to the total combat power of the combined arms team. Other nations have fielded sophisticated infantry fighting vehicles that enable infantry to effectively suppress with their light automatic weapons while buttoned up and moving. In the near future, the introduction of the MICV and new, more powerful cannon will further add to the infantry's suppression capability.

The capabilities of mechanized infantry complement armor. *The task force commander must capitalize on these capabilities and fully integrate them to win.*

Antitank Guided Missiles—Modern ATGM have very high hit and kill probabilities against point targets at long ranges.



While the probability of a Tow hitting a T-62 is greater than the chance of a SAGGER hitting an M60A1, especially at shorter ranges, they are roughly equivalent at longer range.

A Soviet SAGGER has a much greater than 50/50 chance of hitting an M60A1 tank sitting in the open at a range of 1500 meters and a greater than 50/50 chance of killing it. If the M60A1 is exposed, moving at 12 mph, it is equally vulnerable. However, when in hull defilade it is 50% less vulnerable.

The Dragon has much the same hit probability as the TOW, however, only to a range of 1000 meters.

The task force commander must take these facts into account and employ his teams accordingly. Fighting elements should remain concealed until it is absolutely necessary for them to break into the open for an attack or counterattack. Even then, overwatching or suppressing elements of the task force should remain covered and concealed to the maximum extent possible. Teams moving forward must use covered and concealed routes. Every wrinkle of the terrain should be used to decrease vulnerability.

In the defense, the task force commander strives to optimize the employment of his TOW. To do this, he employs them where their capabilities are utilized to the greatest

effect—that is, at long ranges. The task force commander should not normally employ TOW with the infantry. Infantry will normally be employed in areas that are particularly suited to its weapons; terrain that is highly cross-compartmented, wooded terrain, and on covered and concealed avenues of approach into the defender's position. In this terrain, infantry employs LAW and DRAGON. On the other hand, TOW must be employed where full benefit can be made of their long range fires. *The task force commander must be careful not to allow enemy armor to close on his ATGM positions where the tank would then have the advantage of its armor protection, high mobility, and high rate of fire.*

Field Artillery—*Firepower immediately responsive to a US battalion task force has doubled in lethality and achieved range increases of almost 60 percent. Improved conventional munitions when compared to ordinary HE rounds provide up to four times the amount of casualty effect against personnel targets. Projectiles with time delay sub-munitions extend the suppression capability of a single round over a considerable time after impact.*

In the near future, the task force commander will have an indirect fire tank killing capability in the cannon launched guided projectile (CLGP), and also the ability to effectively emplace mine fields with artillery munitions as the tactical situation develops.

Self-propelled artillery supporting the battalion task force is able to move with quick armored thrusts and also able to displace laterally to concentrate fires quickly in a threatened defensive sector. The Soviets, in contrast, support their mechanized forces with extensive numbers of towed cannon and motorized rocket launchers. *The battalion task force can therefore expect to be confronted by 70-100 tubes per kilometer if defending in an attempted breakthrough sector.* Recent indications do however, show an increasing trend toward self-propelled artillery as the Threat recognizes the mobility limitation of towed artillery to support fast and deep offensive operations.

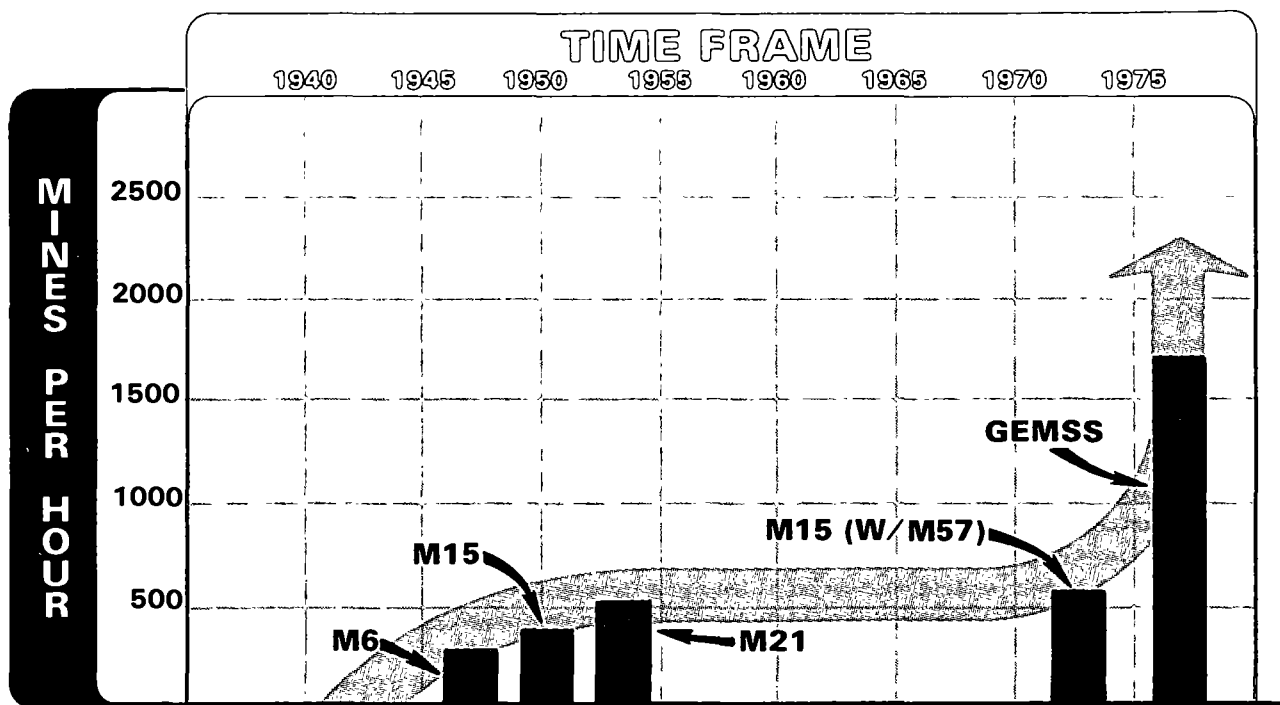
**REACTION TIME TO PROVIDE
INDIRECT FIRE HAS BEEN
GREATLY REDUCED**

The task force commander's indirect fire resources are his primary means of providing suppression and obscuration. Reaction time to provide these fires has been reduced from minutes to seconds by streamlining fire control procedures and by providing dedicated batteries to company teams moving to contact.

The task force commander must skillfully coordinate, with his fire support officer's help, the fire support for his teams according to his operational concept. Often, concentration of massive firepower will save manpower. Failure to properly use fire support assets will reduce the task force's maximum combat power at the critical times and places.

Mines—In an active defense, the task force commander must skillfully use mines to complement his defensive scheme. The defender's problem is one of destroying large numbers of targets in a short period of time.

To gain additional time, the commander should use mines to canalize and slow the enemy, thereby multiplying the effectiveness of his tank and ATGM fires. In the past, the laying of minefields required great expenditures of manpower and time.



The ground-emplaced mine scattering system (GEMSS) has brought almost a fourfold increase in mine laying capacity of one engineer platoon.

In the near future the family of scatterable mines (FASCAM), ground, air, and artillery emplaced, will further increase the task force commander's flexibility.

***Air**—Unlike wars of the past, the US Army can no longer operate on the battlefield without fear of air attack. Threat forces are capable of controlling at least portions of the air over the battlefield and may subject forward task force elements to intense air attack.*

The battalion task force commander must include in his battle plans a scheme for countering Threat tactical fighter bombers and attack helicopters. Both active and passive measures are required; that is, concealment from the air and effective air defense fires. Extensive use must be made of natural camouflaged and camouflage nets. Armored elements must carefully conceal their tracks where they have gone in and out of positions to preclude identification from

the air. Active air defense must be well planned. The task force commander must fully utilize any Vulcan air defensive support that he is provided by brigade. He must also carefully coordinate his REDEYE weapon systems to insure protection of his most critical assets. Individual soldiers and crews must be trained to engage enemy aircraft with small arms and machineguns on their particular armored vehicles.

***Observation Devices**—Smoke, fog, snow, and darkness are conditions which limit visibility on the modern battlefield. Although observation devices which enable modern armies to see during smoke, fog, and snow are still under development, modern armies are increasingly able to fight at night using sophisticated sighting and sensing equipment. The task force commander must make full use of his image intensification and active and passive night vision equipment. Even with the new night observation devices, most weapons are still somewhat less effective at night than in the day.*

Threat forces are skilled in night fighting. They take advantage of reduced visibility offered by darkness or other conditions to continue to press the attack. To do this, they try to:

- Achieve surprise.
- Breach or bypass defensive positions and obstacles.
- Destroy or disrupt command, control and support systems.

Therefore, defending against Threat forces requires that the task force commander make maximum use of his night fighting equipment, especially his passive night viewing equipment. If he does, he can retain the tactical advantages that normally lies with the defender. *Modern night vision equipment makes it possible to fire and maneuver at night almost as in daylight.* Therefore, it is possible to attack at night with more freedom of movement and fewer restrictive control measures than in the past. However, night offensive operations still

require more preparation and carefully designed control measures than are in most cases required in daytime. These include:

Careful preparation and reconnaissance during daylight hours to reduce confusion.

Carefully planned primary and alternate means of communication to insure command and control.

Carefully planned and coordinated fire-power to include suppressive fires.

Concentration of forces at the selected place and time.

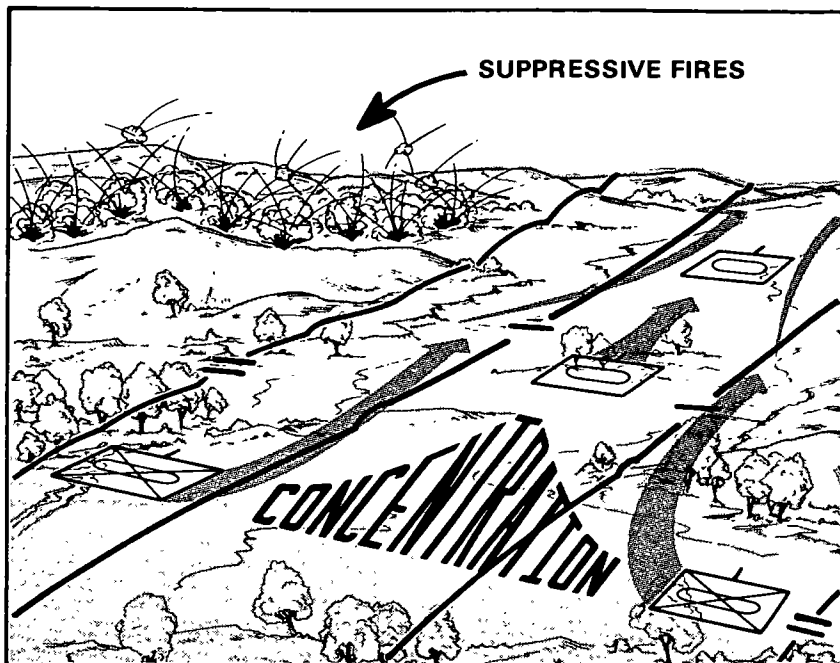
The force which can operate at night as it does in the daytime by making full effective use of cover, concealment and suppressive fires and night vision equipment has a considerable advantage over the force that does not. The task force commander must train his task force to fight at night.

NIGHT COMBAT TRAINING IS IMPERATIVE

MOBILITY

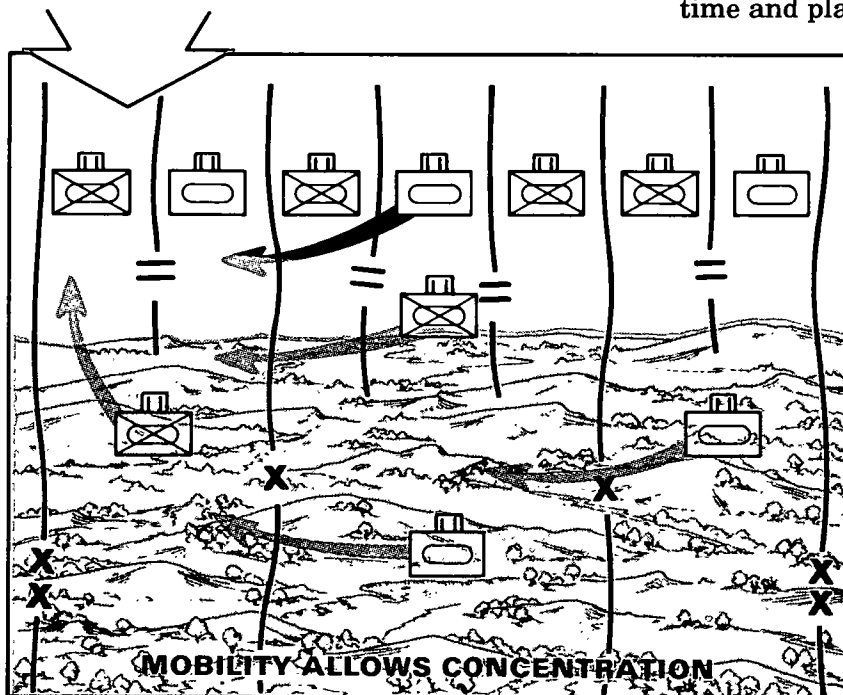
Modern armies are largely mechanized. Tank and infantry combat vehicles of the battalion task force give it a degree of mobility not available to armies of the past. Mobility enables the task force commander to:

- Change the force ratio in his favor so that his unit has the best chance of winning by concentrating overwhelming combat power at the critical place and time.
- Seize the initiative from the enemy, increasing his chance of winning.



In an attack, mobility enables the task force commander to concentrate forces against enemy weak points, penetrating the enemy defensive system.

Whether in the attack or defense, mobility allows the task force commander to concentrate his forces, facilitating the full integration of all elements of his combat power. In the defense, the concentration of force is essential to winning. To win outnumbered, concentration at the critical time and place is even more important.



In some cases, the task force may be required to make long moves. As an example, during the conduct of the active defense a battalion on the right flank of the division may be required to reinforce a battalion task force operating on the left flank of the division. In this case, the task force may be required to move long distances very rapidly.

Mobility enables the commander to mass his forces against an enemy main attack, changing the force ratio in his favor so that he can defend successfully.

The battalion task force commander must be able to shift company teams rapidly from one area to another. If the enemy attacks with a regiment, US Army forces must concentrate tank killing systems of three or four company teams to stop him—*one company team will not be able to do the job*. Concentration of force and superiority of firepower are essential to do this.

**THREE OR FOUR COMPANY
TEAMS REQUIRED TO STOP AN
ATTACKING REGIMENT**

The helicopter has added a new dimension to battlefield mobility which enables commanders to more rapidly concentrate dismounted ATGM teams against an enemy force. From time to time, the battalion task force may be reinforced by attack helicopters. This is described in detail in **FM 17-50, Attack Helicopter Operations**.

SUPPRESSION

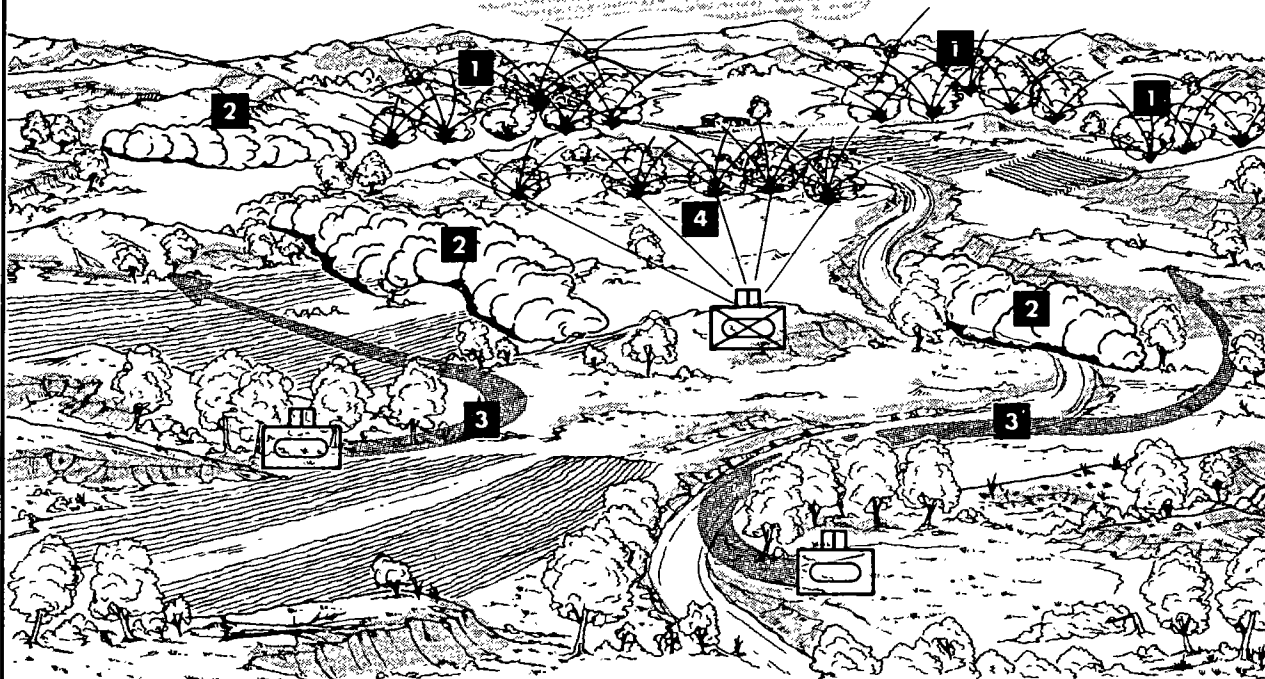
Suppressive fires are those fires, direct and indirect, brought to bear on known or likely enemy locations to degrade the enemy's ability to place effective fires on friendly units. High explosive ammunition or smoke, skillfully employed, can in effect remove enemy weapons from the battle. The commander who cleverly suppresses or obscures enemy vision can change the force ratio in his favor. The task force commander must minimize his own vulnerability by covering and concealing his own forces while at the same time suppressing or destroying the weapons of the enemy. If he does that *he can dominate any battlefield, even against a much larger force*.

Therefore, a key element on the dynamic modern battlefield is the suppression/counter-suppression battle. If the battalion task force commander fires artillery on a distant woodline to suppress enemy antitank guided missiles which could destroy his advancing tanks, he has demonstrated an understanding of the dynamics of modern battle. Artillery suppresses antitank guided missiles by using high explosives to drive the gunners from their sights or smoke to block or obscure their vision. Smoke munitions can

also block the vision of attacking tanks; HE (high explosives) fired at tanks causes them to button-up; reducing the crews' effectiveness by as much as 50 percent. The task force commander must use overwatching elements to provide direct suppressive fires for his teams that are maneuvering on the enemy.

In the active defense, he must also provide overwatching fires for his teams as they move from battle position to battle position.

- 1** Indirect fire weapons are used to suppress known enemy locations with high explosives.
- 2** Smoke is used on likely enemy locations and along routes of movement to conceal the movement of task force teams.
- 3** All elements of the task force must move using covered and concealed routes whenever possible.
- 4** Fire from infantry carriers and tanks is used to suppress antiarmor weapons.



The task force commander is making full use of his indirect and direct fire assets to cover the movement of his teams. If the enemy takes an exposed element under fire, the overwatching element suppresses him while the exposed element moves to covered positions. FM 71-1 describes how company teams and platoons move on the modern battlefield. The task force commander must skillfully use all of his organic and supporting assets to provide suppression and obscurity.

The battalion task force commander who correctly uses suppression can gain the force necessary to defeat the enemy.

NUCLEAR, BIOLOGICAL AND CHEMICAL OPERATIONS (NBC)

With the advance of nuclear technology in the world, many armies will soon be able to employ tactical nuclear weapons. The US Army must therefore be prepared to fight and win when and if tactical nuclear weapons are used. While the destructive power of nuclear weapons makes the nuclear battlefield an even more dangerous place than it might be without them, it is important to remember that:

①

Nuclear weapons effects must be exploited by ground forces to be truly useful.

②

Nuclear weapons effects are degraded considerably by errors in target locating and weapon delivery. The ability of armored units in the task force to move rapidly can prevent the enemy from locating them accurately enough to make an effective nuclear strike.

③

Armor protection and mobility are the best defense against tactical nuclear weapons—the battalion task force has both.

The United States has renounced the first use of chemical agents and all use of biological agents. However, other armies of the world possess these weapons. Introduction of these weapons on the modern battlefield could severely reduce mobility and the ability to concentrate force—unless the task force commander understands the effects of chemical and biological weapons and knows how to fight in chemical and

biological environment. The force that can live in this environment, still moves, use terrain, concentrate superior force and employ suppression will defeat the side that cannot.

COMMAND CONTROL

Reliable, flexible, and responsive command control systems are essential to successful employment of the battalion task force. They provide for:

Control of the maneuver of highly mobile, fast-moving mechanized forces which must be massed to bring superior force to bear at the proper time and place.

Direction and coordination of fires of many weapons, sited at different ranges and locations, and firing in support of battalion task force operations.

The enemy has a significant electronic warfare capability. He can block out radio transmissions during critical periods in the fight. He can listen to transmissions to gain information. He can give false instructions through imitative transmissions. The commander must be able to command and control the battalion task force throughout the battle, in spite of enemy efforts to disrupt the system. To do this, members of the task force must effectively counter enemy electronic warfare efforts against command and control systems by:

■ Planning for control through alternate means in case the primary means is suppressed—messengers, personal contact, prearranged signals and visual means should be used whenever possible.

■ Using radio only when necessary and then transmitting as quickly as possible.

Some confusion in battle is certain to occur. However, if the commander has positive control and issues clear, concise orders, confusion and misunderstanding will be minimized.

SUMMARY

The characteristics of modern battle pose a formidable challenge to the battalion task force commander. He and his soldiers must understand the dynamics of the modern battlefield. If he is to win, the battalion task force commander must be able to:

Take advantage of the strengths of his weapon systems and minimize the capabilities of Threat weapons.

Detect and identify the enemy at maximum possible distances from the friendly main body to prevent engagement of the task force under adverse conditions—unwarned, poorly deployed, not poised to fight.

Move only along covered and concealed avenues making skillful use of terrain to avoid or evade enemy long range observation and fire.
--

Employ suppressive fires from overwatch positions by direct fire weapons and also use suppressive fires from all available indirect fire resources to reduce the chance that maneuvering forces can be seen and engaged by the enemy.
--

Operate in darkness and other conditions of reduced visibility to reduce the range and accuracy of enemy observation and fire.

Skillfully control and distribute tank and antitank fires to kill large numbers of targets rapidly.
--

Operate with precision, discipline, speed, and security in directing and reporting the battle, and be able to do so unimpeded by enemy countermeasures.
--

CHAPTER 2

The Enemy in Modern Battle

OVERVIEW

WAR IS NOT A ONE-SIDED AFFAIR. The enemy has organized his forces and decided upon a doctrine he believes will bring success. Unless we understand his weapons capabilities, his patterns of employment, his doctrine, we cannot counter his moves effectively. The US Army needs commanders and soldiers who understand the potential of the adversary and seek incessantly to learn more of his capabilities.

CONTENTS

	PAGE
OVERVIEW	2-1
DOCTRINE	2-2
COMBAT FORCE STRUCTURE	2-3
MOTORIZED RIFLE UNITS	2-4
TANK UNITS	2-5
THREAT VEHICLES	2-6
ARTILLERY	2-8
AIR DEFENSE	2-12
RADIOELECTRONIC COMBAT	2-15
AIRCRAFT	2-17
Tactical Air Support	2-17
Helicopters	2-18
ENGINEER SUPPORT	2-20
SUMMARY	2-21

DOCTRINE

DEFENSE IS TEMPORARY; AWAITING OPPORTUNITY FOR OFFENSE

The enemy—the *“Threat”*—has fielded a modern, highly mobile and well-balanced fighting force trained to seize and maintain a high tempo of offensive action. Even defensive doctrine is developed as part of an overall offensive strategy. The defense is considered only as a temporary expedient while awaiting an opportunity for offensive action or as an economy of force measure to support the overall offensive.

In the offense, the Threat advocates the concentration of numerically superior forces and firepower for a combination of frontal attacks, enveloping maneuvers, and deep offensive thrusts into the enemy rear by armor-heavy combined arms forces. The Threat anticipates achieving an offensive momentum which will allow his forces to advance 30-50 kilometers a day in a conventional environment and 60-100 kilometers a day in a nuclear environment.

The Threat adheres to certain principles which advance his doctrine of high-speed offensive action.

- ☐ **SEEK SURPRISE** at all times to paralyze the enemy's will to resist and deprive him of the ability to react effectively.
- ☐ **ACHIEVE MASS** in decisive areas by rapidly concentrating men, materiel, and firepower for the minimum time necessary to rupture the enemy's defenses.
- ☐ **ACHIEVE FLANK SECURITY** by aggressive advance.
- ☐ **BREACH ENEMY DEFENSES** at weakly defended positions and rapidly advance deep into rear areas.
- ☐ **BYPASS STRONGLY DEFENDED AREAS**, leaving them for neutralization by following echelons.
- ☐ **LAUNCH MASSIVE ARTILLERY SUPPORT** to include mortars, multiple rocket launchers, antitank guns and tanks (where necessary) for all operations, and achieve up to 100 tubes per km for the deliberate attack (breakthrough).
- ☐ **CONDUCT OPERATIONS** under a dense and redundant air defense umbrella.
- ☐ **DEDICATE A HIGH PRIORITY** to the destruction of the enemy's nuclear and antitank weapon systems.
- ☐ **EMPLOY TACTICAL AIR SUPPORT** to achieve air superiority and conduct air strikes in the enemy's rear areas.
- ☐ **EMPLOY RADIOELECTRONIC COMBAT** as a primary element of combat power.
- ☐ **ACCEPT HEAVY LOSSES** and the isolation of units in the assault.
- ☐ **OVERCOME** natural and man-made obstacles with speed.
- ☐ **CONDUCT OPERATIONS 24-HOURS A DAY** under all visibility and NBC conditions.

Tactics to support these principles are viewed in the context of US battalion task force actions. Chapter 4 discusses Threat defense tactics; Chapter 5 covers their offensive tactics.

COMBAT FORCE STRUCTURE

Threat forces advocate the concept of combined arms, and units are organized accordingly. Motorized rifle troops and tanks consistently operate together; ground operations are always supported by meticulously planned artillery fires. The unit structure is designed to be adapted readily to changing combat requirements by the attachment of large numbers of supporting units.

**SWIFT ADAPTABILITY IS
ACHIEVED BY UTILIZING AN
ABUNDANCE OF
SUPPORTING UNITS**

The Threat commander normally employs his forces in echelons, both in the offense and defense. Each tactical command level down to battalion determines from the situation the number of echelons required for a particular operation. In the offense, two echelons are normal. As a unit attacks in echelons, each with a preplanned scheme of maneuver and objective, the offensive appears to the defender to be a series of attacking waves.

The first echelon is the assault unit which attempts to rupture and pass through enemy defenses. The second echelon is the follow-up element used to defeat bypassed enemy units and to continue or maintain the momentum of the attack.

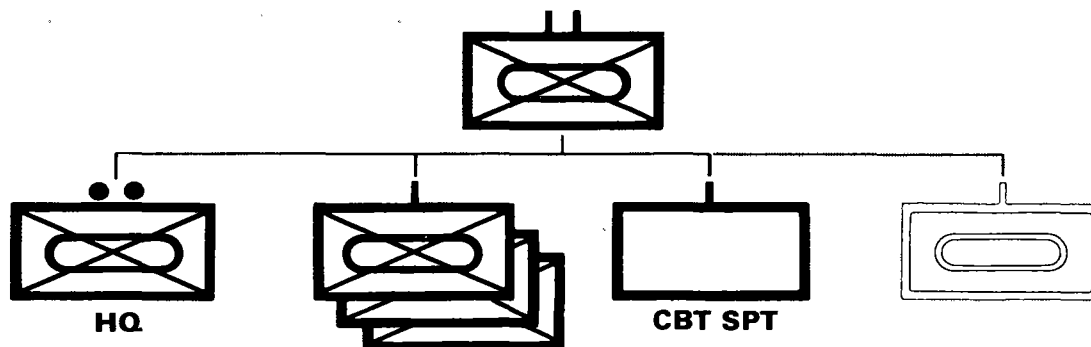
In addition to echelonment, the Threat commander normally retains a reserve which may consist of motorized rifle or tank units and reserves of artillery, antitank, engineers, chemical troops and other type units as required by the tactical situation. The size of the reserve varies, but is relatively small. The reserve is considered the commander's contingency force, which he uses to replace destroyed units, to repel counterattacks, to provide local security against airborne/heliborne and partisan operations, and to act as an exploitation force to influence the outcome of the operation.

**SIZE, COMPOSITION, AND
FUNCTION OF RESERVE FORCES
ARE ALL VARIABLE**

MOTORIZED RIFLE UNITS

The motorized rifle troops are the basic and most versatile arm of its armed forces. Doctrine considers motorized rifle units to be capable of employment under any condition of climate or terrain and at any time. Critical missions for the motorized rifle of the combined arms team are seizing and consolidating terrain in the offense and defending this terrain in the defense. Motorized rifle units are seldom employed without strong artillery, tank, and engineer support.

THREAT MOTORIZED RIFLE BATTALION REINFORCED W/MED TANK COMPANY



ANTIARMOR WPNS	
BMP	32 *
SAGGER LAUNCHER	34 *
SPG-9	2
RPG-7	27
TANK	13

INDIRECT FIRE WPNS	
120mm Mortar	6

AIR DEFENSE WPNS	
SA-7 Launcher	9

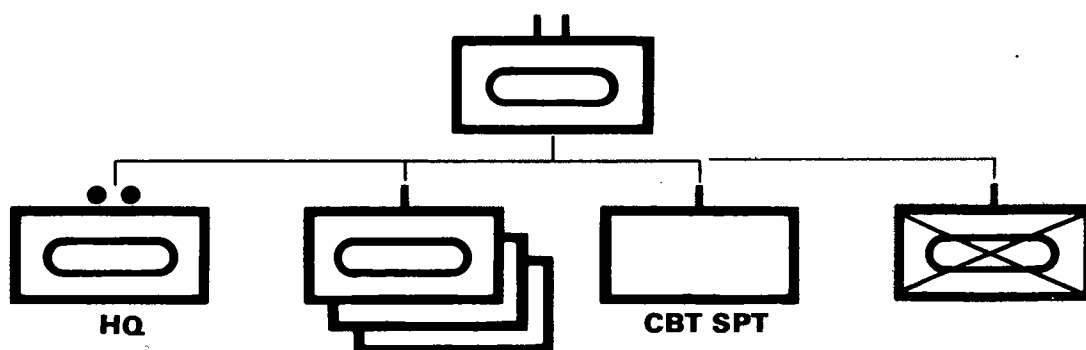
INFANTRY SMALL ARMS	
Rifles AKM 7.62mm	356
LMG PK 7.62mm (BMP)	64
COAX MG 7.62mm (BMP & T-62A)	45
HMG 12.7mm TK Mtd	13
Sniper Rifle SVD 7.62mm	9

*One SAGGER Launcher and one 73mm Smooth Bore Gun with Automatic Loader mounted on each BMP. Each BMP carries four SAGGERS. There are also two man-pack launchers in the battalion, each with two missiles.

TANK UNITS

Tanks may be employed at all echelons. Exploitation is the principal role of Threat tanks. In the offense, tanks are often employed in mass to seize deep objectives. Tank units attempt to seize such objectives before the enemy is able to reorganize for the defense or counterattack. In the defense, the majority of a unit's tanks are held in reserve to be utilized in counterattacks to destroy enemy penetrations and resume the offense.

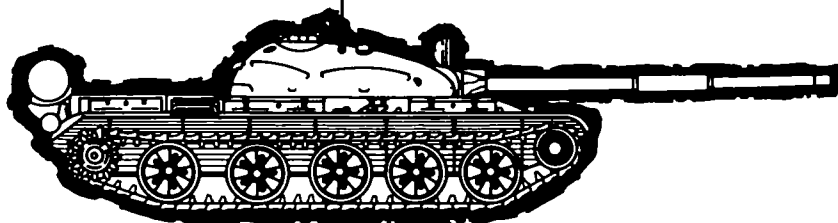
THREAT TANK BATTALION FROM TANK REGIMENT REINFORCED W/MOTORIZED RIFLE COMPANY



ANTIARMOR WPNS	INDIRECT FIRE WPNS	INFANTRY SMALL ARMS
BMP 10	120-mm Mortar 0	Rifles AKM 7.62-mm 212
SAGGER LAUNCHER 10*		LMG PK 7.62-mm (BMP) 20
RPG-7 9	AIR DEFENSE WPNS	COAX MG 7.62-mm (BMP & T-62A) 41
TANK 31	SA-7 Launcher 9	HMG 12.7-mm TK Mtd 31

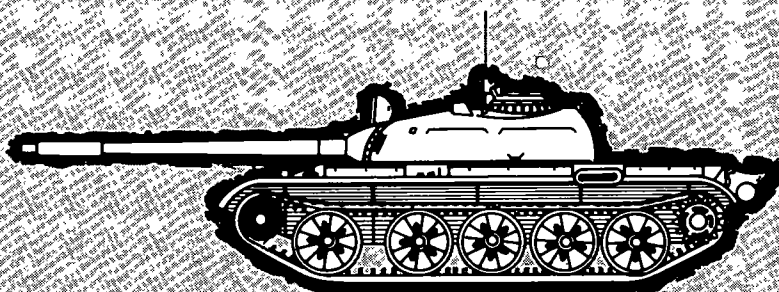
*One SAGGER Launcher and one 73mm Smooth Bore Gun with Automatic Loader mounted on each BMP. Each BMP carries four SAGGERS.

THREAT VEHICLES



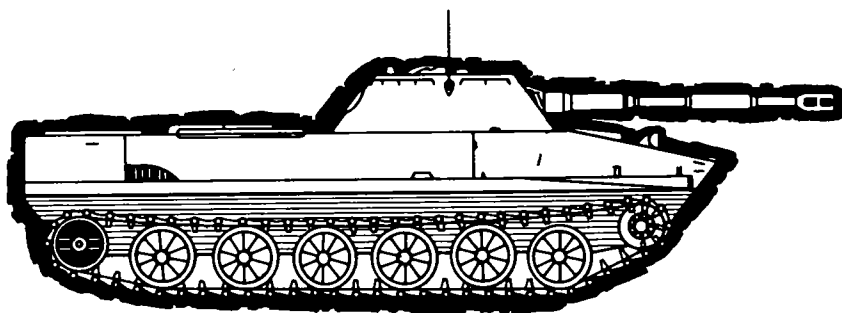
T-62 Tank

Medium tank T-62. The most significant feature of the tank is its 115-mm smoothbore gun. The T-62 has standard infrared night sight and driving equipment as well as a snorkel capability. Additional armament includes a 7.62-mm coaxial machinegun. The T-62A tank appeared in 1970 and is identical in appearance to the T-62 with the exception that the right-hand side of the turret has been redesigned to allow the mounting of a 12.7-mm AA machinegun at the loader's position.



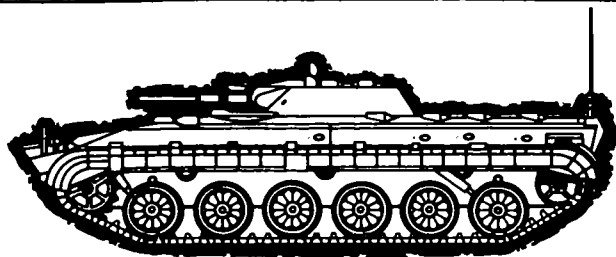
T-55 Tank

Medium tank T-55. The T-55 was developed after World War II as their main battle tank. The vehicle is armed with a 100-mm rifled bore main gun, a 7.62-mm coax, and a 7.62-mm hull-mounted machinegun. It has standard infrared night sight and driving equipment and snorkel capability. This tank is found in most combat units but is being replaced by the T-62 as the primary main battle tank.

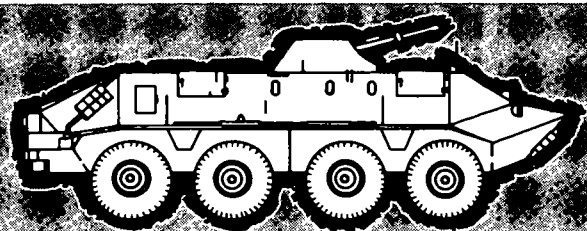


**Amphibious
Tank PT-76**

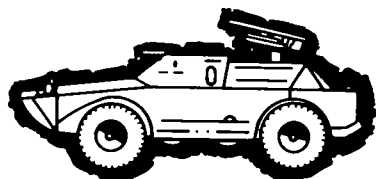
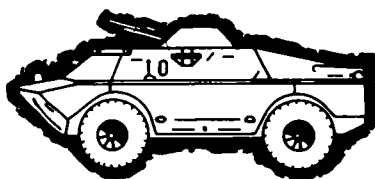
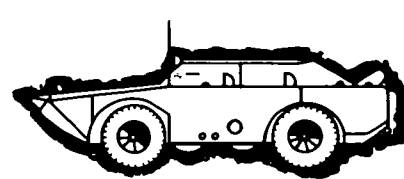
Amphibious tank PT-76. The PT-76 tank is lightweight and amphibious. It mounts a 76-mm main gun and a 7.62-mm coax machinegun. It will normally be found forward of the main Threat forces in reconnaissance units of divisions and regiments.



Amphibious armored infantry combat vehicle BMP. The BMP is used as both a reconnaissance and an armored infantry fighting vehicle. The armored infantry version of the BMP has a crew of 3: gunner, driver, and vehicle commander. The rear compartment has a troop capacity of eight. There are four periscopes and firing ports on each side and one firing port in the rear door, allowing the infantry to fire from inside the vehicle while on the move. Its main armament is a 73-mm smoothbore gun with a SAGGER missile rail mounted over the gun. In addition, each BMP has a rack for 2 SA-7 GRAIL missiles. The BMP is an amphibious vehicle.

BMP

The BTR-60PB is a large vehicle with a boat-like hull with well-sloped armor and a rear-mounted power plant. All eight wheels are driven and the forward two pairs steer. Water propulsion comes from a single hydrojet similar to that used in the BRDM amphibious scout car. The vehicle carries infrared night driving and surveillance devices. The tires have a pressure regulation device. The first modification, the BTR-60PK, which is the most common model, is largely distinguished by its overhead armor cover. The second modification, the BTR-60PB, is also fitted with overhead armor, but is most noticeable by its small conical turret (like that on the BRDM-2) mounting both a 14.5-mm and a 7.62-mm machinegun.

BTR-60PB**BRDM (SAGGER MISSILE)****BRDM-2****BRDM**

Armored reconnaissance vehicle BRDM. The BRDM-2 is a 4-wheel drive amphibious scout car adaptable for many uses on the battlefield. It is a more improved version of the BRDM having greater range and added firepower. Crosscountry mobility is improved by the use of a centralized tire pressure regulation system, and by two sets of small belly wheels that can be lowered to aid flotation and assist in crossing gaps. The rear mounted power plant is improved over that of the first BRDM. Its armament is a small turret mounting a 14.5-mm and 7.62-mm machinegun.

BRDM

ARTILLERY

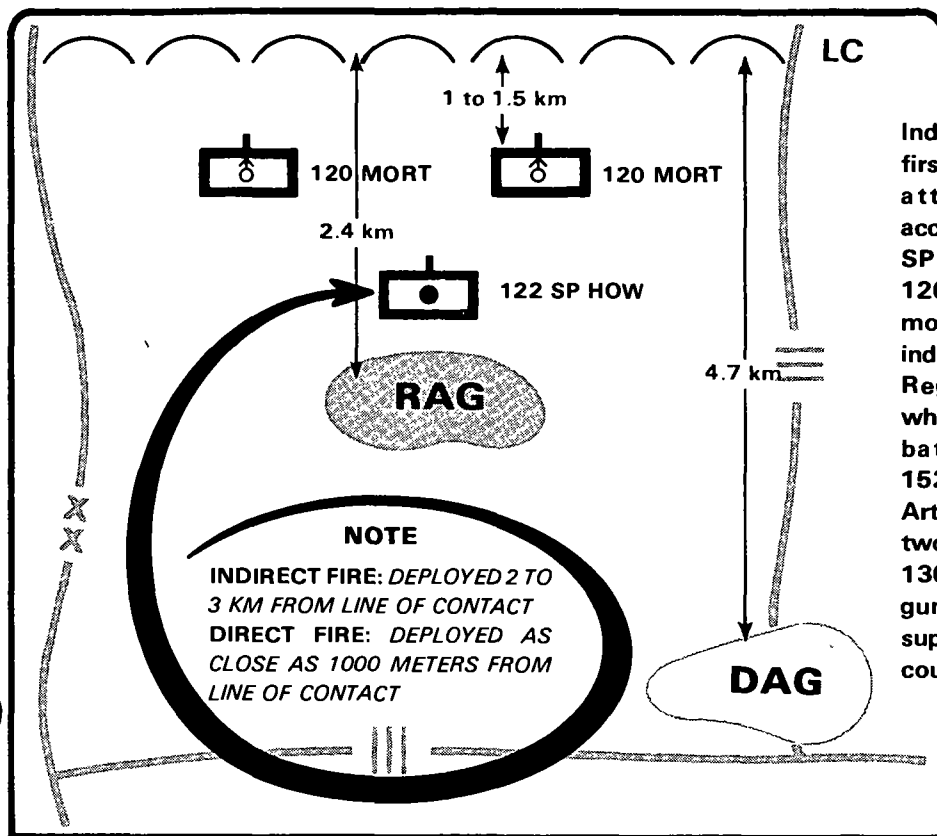
Artillery is a major component of Threat combined arms combat and is employed at all tactical echelons. With few exceptions, all offensives include an extensive artillery preparation with a large number of weapons.

Threat artillery support saturates areas with massive barrages so as to cover all likely targets. Threat artillery also employs the concept of "fire strike," a severe and intense bombardment by artillery weapons to destroy the enemy without using ground troops. Direct fire is extensively used on targets of opportunity, fortifications, and to support tank and motorized rifle attacks (especially by countering or suppressing ATGM and similar systems).

ARTILLERY GROUPS ARE IMMEDIATELY RESPONSIVE TO SUPPORTED MANEUVER UNIT COMMANDERS

Threat artillery is organized for combat at army, division, and regimental level by combining organic assets with any assets from higher headquarters. Each of these groups, the Army Artillery Group (AAG), the Division Artillery Group (DAG) and Regimental Artillery Group (RAG) can be immediately responsive to the level of command it supports. For example, the RAG, led by a senior artillery battalion commander, is under the control of the maneuver regiment commander to whom it is assigned.

A group will normally contain from two to four battalions. Each of the various types of artillery groups are flexible in their organization and can be altered during an operation. Fire planning and the execution of fire support for the AAG, DAG and RAG will be centralized at Army level at the beginning of a battle and then proceed to the DAG. Through this procedure, Threat forces obtain the capability to weight the main effort.



Indirect and direct fire support for first echelon battalions in the attack is provided by an accompanying battery of 122mm SP howitzers and the organic 120-mm mortar batteries in each motorized rifle battalion. Massive indirect fires will come from the Regimental Artillery Groups which consist of two to four battalions of 122-mm and 152mm howitzers. The Divisional Artillery Group (DAG) consists of two to four battalions (primarily 130-mm guns and 152-mm gun-howitzers and fires both in support of the attack and in counterbattery.

Under this system of organizing for combat, it is not uncommon for a Threat division conducting a main attack to have thirteen battalions of artillery, with representative calibers from higher command levels. These artillery battalions are in addition to the organic artillery batteries of the motorized rifle regiments within the division which are not normally placed in the RAG. It should be kept in mind that the artillery assets available to a division leading a main effort can be further augmented by the attachment of artillery organic to second echelon divisions.

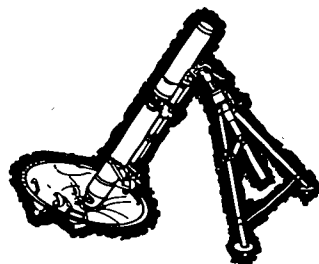
As maneuver forces begin their attack, the decentralization process begins. The first artillery formations to be decentralized are the RAG to the first echelon regimental commanders. *Threat doctrine calls for continuous artillery support right up to accomplishment of the mission, providing for*

continuous, concentrated fires to support high rates of advance. As maneuver forces move forward, artillery units are displaced forward to insure continuous support. Normally, two-thirds of the fire support assets will be in position to fire at any given time. As maneuver forces approach an opponent's reserve areas, the DAG will be decentralized to the division commander's control to support an exploitation. RAG will remain under the control of regimental commanders.

The amount of fire support that will be placed on a given target will depend upon the nature of the target and relative importance. The amount of ammunition to be expended on a target will be defined in terms of so many units of fire, which vary as a function of nature of target and range. At any rate, expenditures can be expected to be large when supporting a main attack.

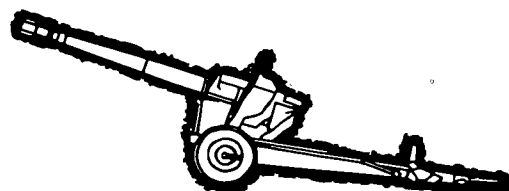
THREAT FIRE SUPPORT

*	WEAPON	RANGE	NORMAL DISTANCE BEHIND FEBA (KM)		RATE OF FIRE (RD/MIN)	ILLUSTRATION KEY
			OFFENSE	DEFENSE		
	120-mm MORTAR	5,700 meters	0.5	1	15	1
	240-mm MORTAR	9,700 meters	2	3	1	
	130-mm FIELD GUN	27,000 meters	5	9	5 to 6	2
	180-mm FIELD GUN	30,000 meters	7	9	1	
	122-mm HOWITZER	15,300 meters	3	4	6 to 8	3
*	122-mm SP GUN	15,300 meters	3	4	4 to 6	4
	152-mm HOWITZER	12,400 meters	3	4	3 to 4	
	152-mm GUN/HOWITZER	17,000 meters	4	5	5	5
*	152-mm SP GUN/HOWITZER	18,500 meters	4	5	4 to 6	6
	122-mm MRL BM-21	20,500 meters	5	5	40 RDS/10 MIN (Rate/reload time)	7
	122-mm MRL RM-70	20,500 meters	5	5	40 RDS/5 MIN (Rate/reload time)	
	FROG-7	11 to 70 kilometers	18	23	1 RD/20 MIN	8
* Highest probability for employment in Direct-Fire role.						



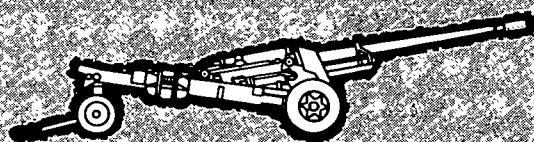
1

120-mm M-1943



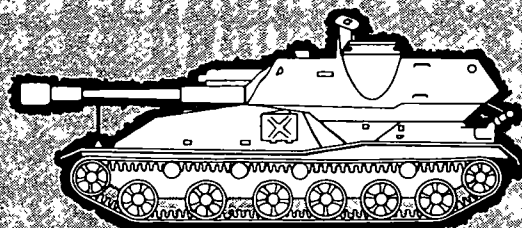
5

152-mm GUN/HOW D-20



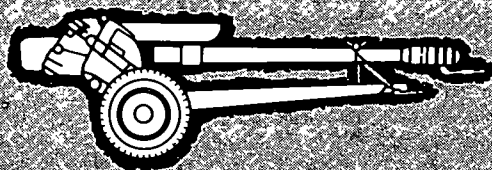
2

130-mm GUN M-46



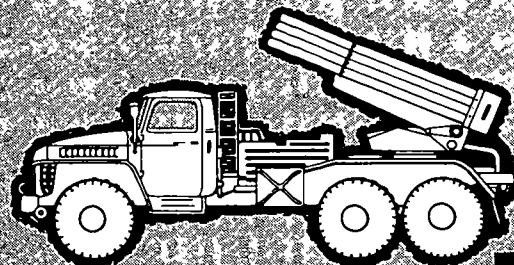
6

152-mm SP GUN/HOW



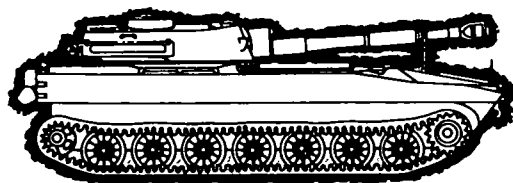
3

122-mm HOW D-30



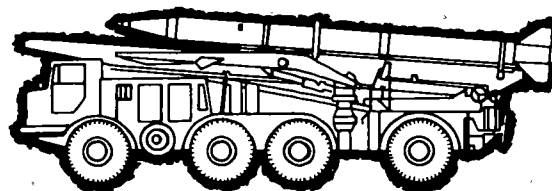
7

122-mm BM-21



4

122-mm SP GUN



6

FROG-7

AIR DEFENSE

Threat forces have developed and deployed mobile surface-to-air missiles and conventional AA guns for air defense of their field units. The mobile low altitude air defense weapons to be found in maneuver elements are the ZSU-23-4 AA gun system, the man-portable SA-7 (GRAIL) and vehicle-mounted SA-9 (GASKIN) heat-seeking missiles, and the vehicle-mounted, radar-controlled SA-8 (GECKO); each of these systems is self-contained and capable of operating as a single fire unit. For medium altitude air defense, the maneuver elements are protected by SA-6 (GAINFUL) batteries. Larger formations are equipped with the SA-4 (GANEF) units for high altitude defense. The most important supply and command installations of the rear will be protected by the semi-mobile SA-2 (GUIDELINE) and SA-3 (GOA) systems.

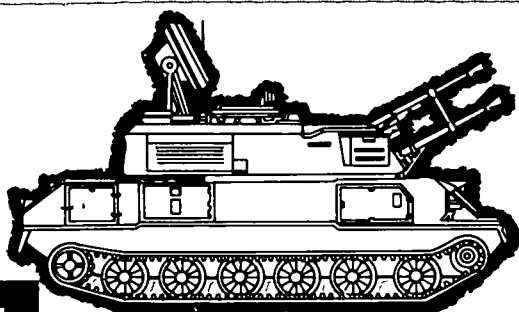
CHARACTERISTICS OF AIR DEFENSE WEAPONS

ANTIAIRCRAFT GUNS

MODEL	CALIBER	EFFECTIVE VERTICAL RANGE (METERS)	MAXIMUM RATE OF FIRE (RPM)	FIRE CONTROL	ILLUSTRATION KEY
ZSU-23-4	23-mm	2,500 TO 3,000 (OPTICS) (RADAR)	1,200	RADAR OR OPTICAL	1
ZSU-57-2	57-mm	4,000	240	OPTICAL	2
S-60	57-mm	6,000	120	RADAR OR OPTICAL	3

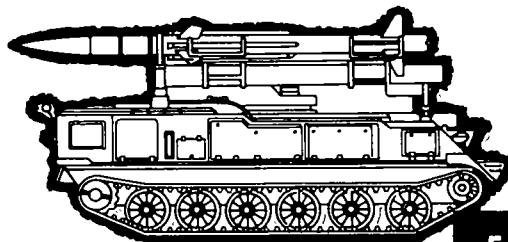
SURFACE-TO-AIR GUIDED MISSILES

MISSILE NAME	SLANT RANGE (KM)	LEVEL OF PROTECTION	ILLUSTRATION KEY
SA-2 GUIDELINE	45	HIGH ALTITUDE	
SA-3 GOA	22	MEDIUM-LOW ALTITUDE	
SA-4 GANEF	70	MEDIUM-HIGH ALTITUDE	4
SA-6 GAINFUL	30-35	LOW-MEDIUM ALTITUDE	5
SA-7B GRAIL Modified	3.5	LOW ALTITUDE	6
SA-8 GECKO	10-15	LOW-MEDIUM ALTITUDE	7
SA-9 GASKIN	7.0	LOW ALTITUDE	8



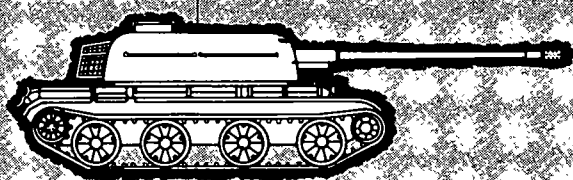
1

ZSU-23-4



5

SA-6 GAINFUL



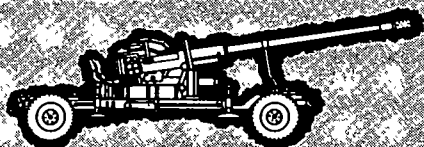
2

ZSU-57-2



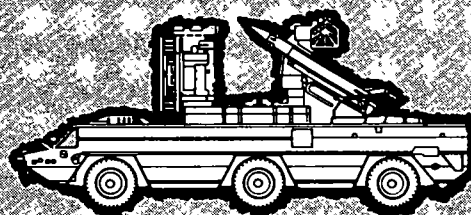
6

SA-7B GRAIL MOD.



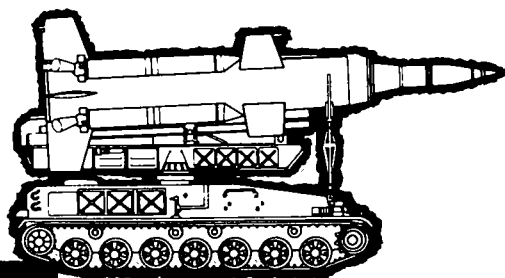
3

57-mm S-60



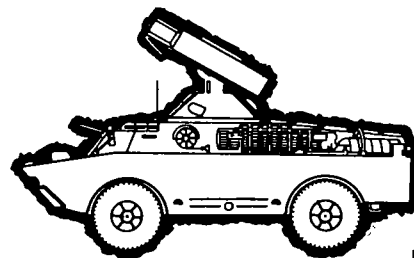
7

SA-8 GECKO



4

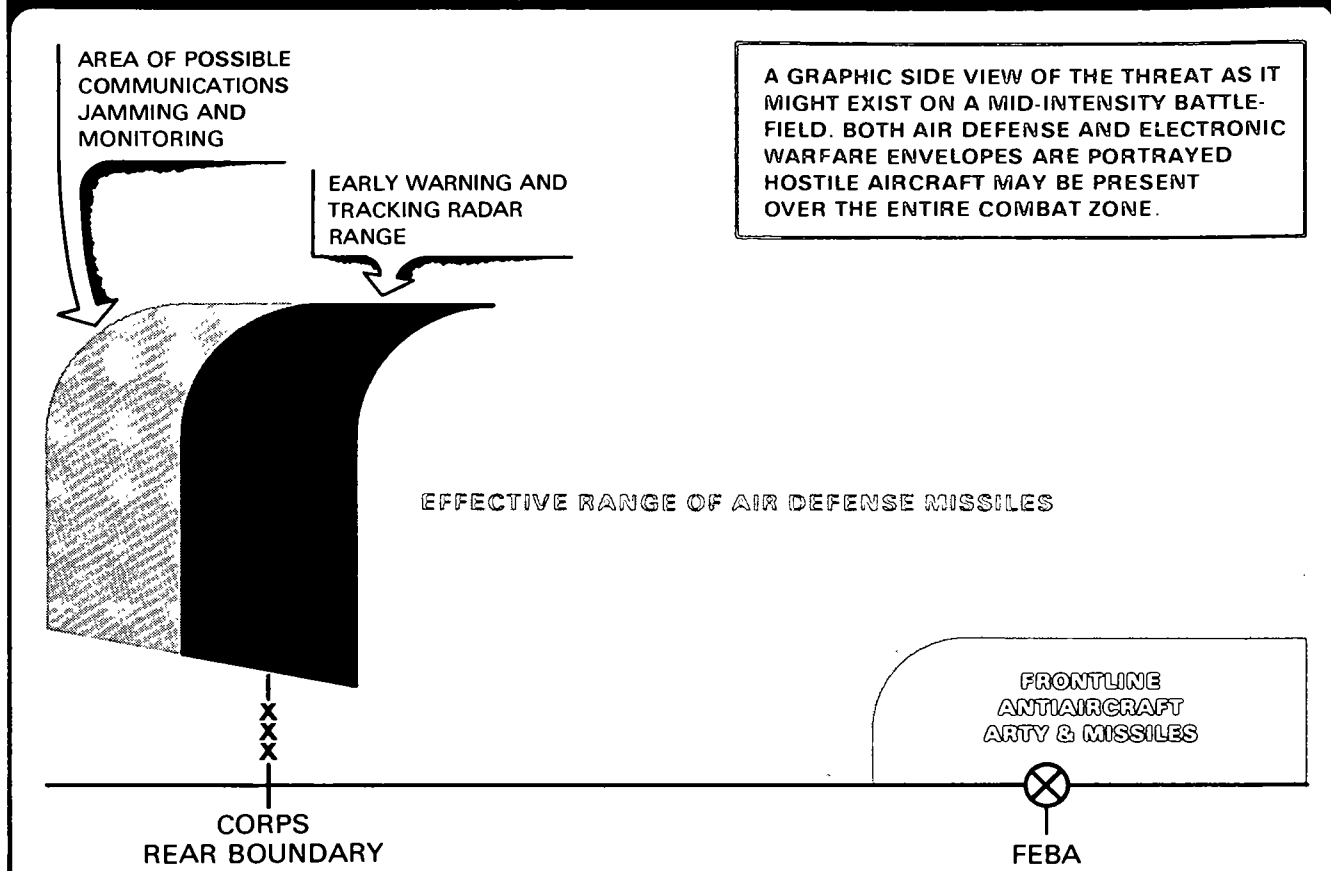
SA-4 GANEV



8

SA-9 GASKIN

THREAT AIR DEFENSE PROFILE



A GRAPHIC SIDE VIEW OF THE THREAT AS IT MIGHT EXIST ON A MID-INTENSITY BATTLEFIELD. BOTH AIR DEFENSE AND ELECTRONIC WARFARE ENVELOPES ARE PORTRAYED. HOSTILE AIRCRAFT MAY BE PRESENT OVER THE ENTIRE COMBAT ZONE.

The Threat provides air defense of its mobile formations by saturating the air space from low to high altitude, using integrated systems of conventional weapons and SAM. Threat field formations rely on vehicle mounted SAM and mobile guns to protect their fast-moving tank and motorized rifle units. These are augmented by interceptor aircraft of Tactical Air Armies (TAAs) and by electronic countermeasures (ECM) units.

Air defense is established on the basis of providing zone or direct cover for troops and objectives. Zone coverage is provided by the SAM systems while point protection is provided by divisional and regimental light air defense weapons. During the planning phase, the division commander personally directs the deployment of the air defense

weapons to support his mission, lays down coordination lines, and establishes priorities and procedures for supply and technical support. The division air defense commander then plans deployments of his assets based on the division commander's instructions, the air situation, communications and control.

SAM missile units will normally move as a battery and either be integrated into the march column or be moved along separate routes to insure adequate coverage. Towed AA guns will also normally be moved as a battery and integrated into march columns. The mobile air defense automatic weapons and low altitude SAM will be integrated by individual piece into march columns to insure adequate air defense protection for the entire march column. These weapons will fire on the

move when the column is attacked. Additionally, antiaircraft machineguns mounted on vehicles will engage low-flying aircraft attacking the march column. When a column makes long halts, AD weapons will disperse slightly from the column to provide a full 360° protection while retaining the capability to rapidly move back into march column.

Air defense units will be employed to provide optimum coverage of the troops as well as protect critical support areas and division rear. Regimental AD weapons will be employed in direct support of maneuver battalions. These systems receive missions from the battery commander in addition to monitoring the air warning net. They will be deployed well forward and their primary targets will be enemy close air support aircraft and attack helicopters.

RADIOELECTRONIC COMBAT

The Threat may be expected to attempt to systematically analyze US Army communication and noncommunication emitters. The enemy may then attempt to destroy or disrupt at least 50 percent of our command, control, and weapon system communications wherever possible by using suppressive fires or electronic jamming.

**WEAPON SYSTEMS AND
COMMUNICATIONS CAN BE
DESTROYED ON A
SYSTEMATIC BASIS**

Direction finding of radio transmitters is not precise. The enemy's suppressive artillery fires will usually not be fired at locations provided only by direction finding. However, there are exceptions. Due to the high concentration and wide dispersal of multiple rocket launcher fires, they can be fired against soft targets located by direction finding with a good chance of destroying the target. Suppressive fires are also effective against most radars since they can be located by direction finding to within 50 meters of their actual location. Jammers also provide excellent targets for suppressive fires used in conjunction with direction finding. Otherwise, the enemy requires information from other sources to refine direction finding

locations into targets. This information is often provided by poor signal security (SIGSEC) or poor electronic counter-countermeasures (ECCM) on the part of the opposing force.

THREAT DIRECTION FINDING IS USED:

- To provide approximate locations of emitters suitable for firing suppressive barrages or multiple rocket fires.
- To provide precise locations of most radars and jammers.
- To provide locations which when applied in conjunction with signal and terrain analysis can be refined to a target area with a radius of 100 to 250 meters.
- To gain a picture of the battlefield with respect to the disposition and intentions of units. The dispositions and intentions of units may be revealed by a single key emitter.

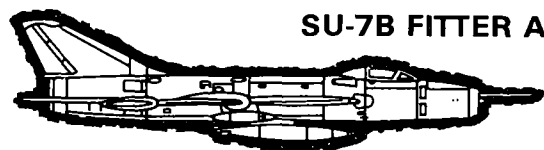
ELAPSED TIME	UNIT/ACTIVITY	PRIMARY ACTION	CONCURRENT ACTION	UNIT/ACTIVITY
	US TRANSMITTER	INITIATES COMMUNICATION		
10 SECONDS	COMINT OPERATOR	DURING SEARCH OF VHF BAND, IDENTIFIES US TRANSMITTER AND FLASHES ALERT TO RDF NCS	ALSO NOTIFIES COMINT ANALYSTS	COMINT ANALYSTS
25 SECONDS	NET CONTROL STATION (RDF #2)	FLASHES RDF NET REQUESTING BEARINGS FROM EACH STATION TO TARGET TRANSMITTER	COMINT ANALYSTS FORWARDS INFO TO PLOTTING & ANALYSIS SECTION	
55 SECONDS	RDF STATIONS #1 AND #3	ACQUIRE BEARINGS AND REPORT BACK TO RDF NET CONTROL		
85 SECONDS	NET CONTROL STATION (RDF #2)	REPORTS APPROXIMATE LOCATION TO PLOTTING AND ANALYSIS SECTION		
115 SECONDS	PLOTTING AND ANALYSIS SECTION	REFINES APPROXIMATE LOCATION BY APPLYING COLLATERAL INFO, MAP ANALYSIS, AND COMINT		
2 TO 3 MINUTES	PLOTTING AND ANALYSIS SECTION	FEEDS INFO TO APPROPRIATE MISSION	● JAMMING ● FIRE ● COMBAT ● INTELLIGENCE	

AIRCRAFT

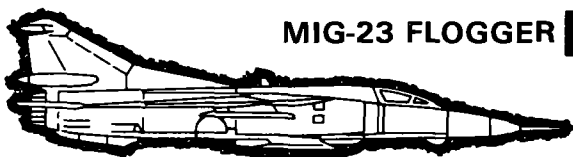
Tactical Air Support. Threat forces consider air strikes as an extension of artillery. The greatest emphasis on tactical air support of ground operations is during attacks against preplanned targets such as tactical nuclear delivery systems, control posts, and command and communication elements. Tactical air support also seeks to neutralize artillery support and reserves within the tactical and immediate operational depths. Threat aviation does not normally utilize high performance aircraft to provide close air support along the line of contact except in certain specialized operations and situations such as mountain operations, hasty river crossings, and while supporting penetrations and exploitations which have outrun the bulk of the supporting artillery.



MIG-21 FISHBED 1



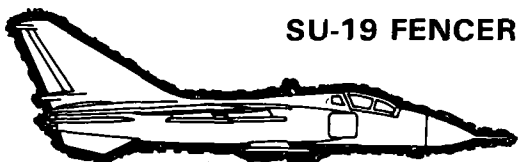
SU-7B FITTER A 2



MIG-23 FLOGGER 3



MIG-25 FOXBAT 4



SU-19 FENCER A 5

OPERATIONAL CHARACTERISTICS

1 MIG-21 FISHBED

TYPE: Ground Attack Fighter
SPEED: 1,203 knots (1,385 mph)
COMBAT RADIUS: 683 miles (1,100 km)
ARMAMENT: Underwing pylons for weapons or drop tanks; rocket packs, etc.; twin barrel 23-mm cannon.

2 SU-7B FITTER A

TYPE: Ground Attack Fighter
SPEED: 1,040 knots (1,196 mph)
COMBAT RADIUS: 200-300 miles (320-480 km)
ARMAMENT: Rocket packs and bombs; usually two 1,650 lb. and two 1,100 lb.; 30-mm cannon.

3 MIG-23 FLOGGER

TYPE: Ground Attack Fighter
SPEED: 1,233 knots (1,420 mph)
COMBAT RADIUS: 600 miles (960 km)
ARMAMENT: Bombs, CBU's; one 23-mm twin cannon rack.

4 MIG-25 FOXBAT

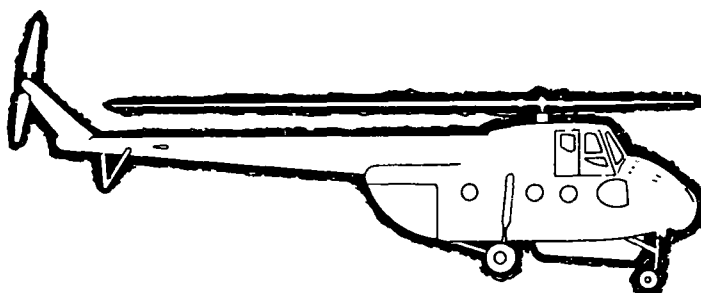
TYPE: Reconnaissance/Fighter
SPEED: 1,835 knots (2,115 mph)
COMBAT RADIUS: 700 miles (800 km)
ARMAMENT: Four hardpoints and internal weapons bay.

5 SU-19 FENCER A

TYPE: Heavy Fighter/Light Bomber
SPEED: ?
COMBAT RADIUS: 125-250 miles (200-400 km)
ARMAMENT: Externally carried warloads of approximately 5 tons. Includes bombs, 57-mm unguided rockets, or four air-to-surface missiles.

Helicopters. Threat forces are increasing their inventory and tactical use of an already large force. They have large, heavy-lift helicopters used for moving supplies and some troop-carrying aircraft used for airmobile operations. In the future, however, Threat forces can be expected to use helicopters in armed reconnaissance, cavalry and air assault roles plus close air support of ground operations.

Mi-4 HOUND



OPERATIONAL CHARACTERISTICS

TYPE: Transport and General Utility.

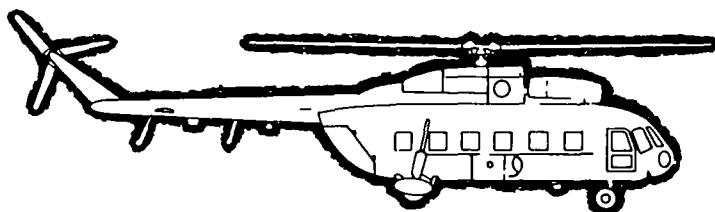
SPEED: 113 knots (130 mph).

ARMAMENT: Close support version has machinegun and air-to-surface rockets.

TROOPS: Carries 12-18 men.

NOTE: Airborne cavalry assault or commando raid.

Mi-8 HIP



OPERATIONAL CHARACTERISTICS

TYPE: Medium Transport and Assault.

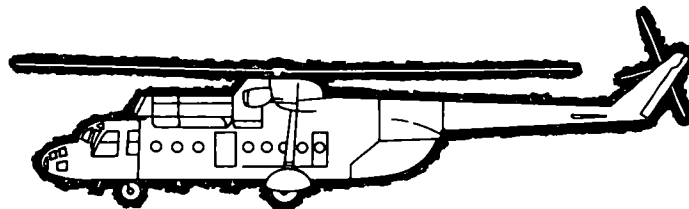
SPEED: 135 knots (155 mph).

ARMAMENT: Can be equipped with external stores.

TROOPS: Carries 12-24 men.

NOTE: Airborne cavalry assault or commando raid.

Mi-6 HOOK



OPERATIONAL CHARACTERISTICS

TYPE: Heavy Transport and Assault.

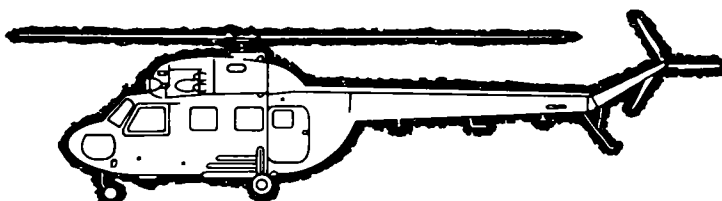
SPEED: 162 knots (186 mph).

ARMAMENT: Some fitted with gun in nose.

TROOPS: Carries 60-80 men.

NOTE: Airborne cavalry assault or commando raid.

Mi-2 HOPLITE



OPERATIONAL CHARACTERISTICS

TYPE: Utility.

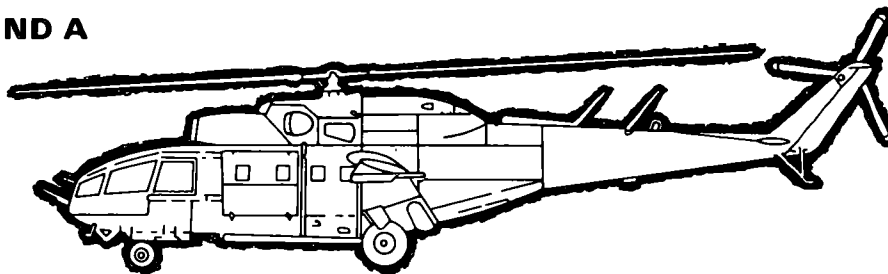
SPEED: 113 knots (130 mph).

ARMAMENT: Antiarmor missiles and rocket pods.

TROOPS: Carries 6-8 men.

NOTE: Commando raid.

Mi-24 HIND A



OPERATIONAL CHARACTERISTICS

TYPE: Assault/Attack Helicopter.

SPEED: 145 knots (165 mph).

ARMAMENT: Three weapon stations on wings; antiarmor missiles and rocket pods; one automatic cannon.

TROOPS: Carries 8 men.

ENGINEER SUPPORT

Threat combat engineer units are found at regiment and division. Above division, there are large specialized engineer organizations such as construction units, bridging units, assault crossing units, mapping and survey, and pipeline construction.

The primary mission of Threat combat engineers is to insure the momentum of maneuver mobility by rapidly overcoming natural and manmade obstacles while at the same time hindering the enemy force's movement. Secondary, but vitally important, missions include camouflage, fire protection, damage clearing, and water supply.

COMBAT ENGINEER UNITS CAN BE UTILIZED AS INFANTRY

Threat combat engineer units are equipped with the same small arms, tactical communications, and, in many cases, combat vehicles as are the combat arms units. They have the capability to fight as infantry when required. Engineer equipment may be classified as demolitions, including ADM, mine warfare, river crossing, heavy construction, and utility.

Threat offensive operations are characterized by speed and shock, much of which is aided by engineer operations. Engineer support is well forward and priority is given to the reduction of obstacles for maneuver units.

EQUIPMENT, ORGANIZATION, TRAINING: ALL STRESS IMPORTANCE PLACED ON HIGH SPEED ASSAULT RIVER CROSSING

By far the most important engineer operation in the offense is the river crossing. Threat engineer equipment, organization, and training are, therefore, designed to ensure that river crossings are regarded as a normal part of a day's advance, to be carried out from the line of march whenever possible. Threat forces have fielded some of the best bridging equipment in the world to complement their tactical doctrine of the high speed assault river crossing.

Engineers also support the offensive by providing technical assistance in reconnoitering:

- Roads
- Defiles
- Bridges
- River crossing sites
- Bivouac areas
- Water supply sources

Additionally they:

- Mark march routes
- Reduce obstacles
- Repair and strengthen bridges and roads
- Clear passages through minefields and contaminated areas

Mobile obstacle detachments (MOD) are formed from organic engineers to provide flank security against armor threats. These detachments vary in strength from a platoon to a company and are composed of motorized rifle squads or platoons, antitank teams, and mechanized mine layers. Their mission is to provide protection for the advancing column by laying hasty minefields and establishing other expedient obstacles along armor approaches. Threat doctrine calls for extensive use of mines, even in the offensive.

Threat defensive operations are characterized by the extensive use of prepared positions and large scale employment of mines and other obstacles. The primary mission of the engineers in the defense is to assist the combat elements in preparing defensive positions, supervise and assist in the preparation of obstacles, and assist in maintaining the mobility of the reserves.

SUMMARY

The battalion task force commander and his soldiers must seek an increased knowledge of the Threat so as to plan and execute successful battles. The more he knows about the enemy, the more the commander can reduce the uncertainties of battle. Important points to keep in mind are:

The Threat has a modern, highly mobile army which attempts to move rapidly over great distances. The offense is emphasized.

Concentration of forces in depth is meant to overwhelm the defenders even if casualties are suffered at high rates.

Threat forces are predominantly armored, featuring large numbers of tanks and armored infantry fighting vehicles.

Artillery support is massive. Air defense is modern and comprehensive. And tactical air support is available at the critical points on the battlefield.

Threat forces are capable of fighting at full potential on a variety of battlefields, including the NBC environment. They train extensively for operations during limited visibility.

Threat forces are prepared to conduct effective electronic warfare operations such as radio interception, jamming, direction finding, and other countermeasures.



CHAPTER 3

Organization and Operation of a Battalion Task Force

OVERVIEW

THE BATTALION TASK FORCE combines, temporarily, tanks, mechanized infantry, TOW sections, and support units. Led by the commander of either a tank or mechanized infantry headquarters, its combination of forces meets the brigade commander's concept of operation.

The task force commander must fully understand the capabilities and limitations of its components and its whole. He must organize to maximize the potential of the forces assigned him and he must make the organization work by aggressive, competent, uncomplicated leadership.

CONTENTS

	PAGE
OVERVIEW	3-1
THE TASK FORCE COMMANDER	3-2
TASK FORCE ORGANIZATION	3-4
THE MAJOR COMPONENTS: CAPABILITIES AND LIMITATIONS	3-5
HOW TO TASK ORGANIZE	3-7
The Fire and Maneuver System	3-8
The Fire Support System	3-9
The Intelligence System	3-9
The Mobility-Countermobility System	3-10
The Air Defense System	3-10
The Logistic System	3-11
The Command and Control System	3-11
THE TASK FORCE: CAPABILITIES AND LIMITATIONS	3-12
HOW TO MAKE IT WORK	3-13
The Commander's Concept of Operation	3-13
Plans and Orders	3-14
The Troop Leading Process	3-16
Example of a Troop Leading Sequence	3-20
SUMMARY	3-23

THE TASK FORCE COMMANDER

Although it is true that the actual fighting is done by the members of companies, it is the battalion and its commander on which the battle outcome chiefly depends. The battalion normally fights as a cross-reinforced task force. But even when it does not (that is, when it fights as pure infantry or tanks), the battalion is the level which combines the various arms tactically on the terrain and brings its combined combat powers to bear on the enemy.

THE CHARACTERISTICS OF A BATTALION MIRROR THOSE OF THE COMMANDER

There are no "good" battalions with "bad" battalion commanders. The fighting characteristics of a battalion (good or bad) emanate from the character of the battalion commander. Aggressive and tough battalion commanders have aggressive and tough battalions. Tactically skillful commanders have battalions which optimize their effectiveness and minimize their vulnerabilities, and thus habitually execute their missions successfully with minimum losses. *Battalion commanders who understand their weapons, use them properly and see to it that crews and individual soldiers are trained up to the full potential of those weapons can win - even if outnumbered.* Lastly, battalion commanders who are also steadfast and unshakable can lead soldiers successfully on the dynamic, lethal and demanding modern battlefield.

The tank or mechanized infantry task force requires a commander who is equally versed in armor and infantry weapons, tactics, and support. All armor and infantry battalion commanders must be combined arms specialists!

Because the battalion commander must adapt the combined arms team to the enemy, the terrain and his mission, he must have a total understanding of all the tools at his disposal and what they can and cannot do. Then he must master the techniques of combining them in the best possible mix for

each tactical problem as it arises. The commander has these tools:

- 1 *His staff*
- 2 *His weapon systems*
 - infantry
 - armor
 - ATGM
- 3 *His fire support*
 - mortars
 - artillery
 - close air
 - attack helicopters
 - air defense
- 4 *His reconnaissance and security elements*
- 5 *His engineers*
- 6 *His combat service support*

1 *His staff* - The battalion is the first tactical echelon with a staff. Small but essential, it helps the battalion commander by doing all those things that need to be done by the commander which he cannot do because he doesn't have the time to do them and because many must be done simultaneously.

The battalion staff helps the commander win the battle. Such a staff member has certain standard responsibilities. But the greatest responsibility of all is to make the battalion commander's plan work—to support it in every conceivable way—with imagination, initiative and skill with or without instructions.

The staff relieves the battalion commander of personal involvement in routine functions so that he can drive the battle. Supply, maintenance, administration, reporting, communications, are all supervised or performed by the staff. Standard operating procedures (SOP) are used as much as possible.

The battalion commander is then free to decide how to deploy his weapons and how to employ all the fire support which is available to him or which he needs.

2 *His Weapon Systems* - The battalion commander has three kinds of weapons or weapon systems which he can maneuver on the battlefield. This is true in the attack, in the defense, or the delay.

The first is his **infantry** which is especially designed to operate at times and in places of limited visibility or relatively short fields of fire.

The second is the **armor**. Tanks are principally effective where they can move fast and shoot at long ranges.

The third is the long range **anti-tank guided missile** which *cannot* operate effectively where rifle elements are usually deployed and cannot lead the attack like the heavily armored tank, but *can* deliver long range highly lethal pinpoint fire against enemy armor.

3 *His Fire Support* - The battalion commander must use these systems in accordance with their peculiar strengths and weaknesses. The battalion commander must organize and coordinate the firepower available for support of his maneuver systems. Using both organic and supporting systems, he must bring to the battlefield those elements which help him **move, suppress, and destroy**.

4 5 6

His Other Support - Likewise, he must use his reconnaissance and security elements to help him *see* the battlefield and prevent being surprised. His engineers must help him move and prevent enemy movement. And he must insure complete combat service support to keep his soldiers and vehicle moving and prepared for the fight.

LEADERSHIP

The command of a tank or mechanized infantry battalion task force is a *highly personalized function* in which the battalion commander controls the battlefield interaction of his weapons with the terrain and the enemy. He does this by being *on* the battlefield. He sees and feels the battle. He sees the enemy and he sees his companies. He brings in supporting fires and arranges the infantry support of tanks and vice versa. He

fights forward. He issues orders when needed. He changes plans and instructions as necessary. He issues orders orally, directly and face to face when he can. His presence is "felt" on the battlefield by his own troops and the enemy. His orientation is forward, but his actions fulfill the orders and intentions of his brigade commander. The battalion commander *must do all of these things correctly* under very difficult battlefield conditions.

TASK FORCE ORGANIZATION

The brigade commander determines the forces allocated to his battalion task forces based on his concept for the operation—how he plans to operate, given the mission the brigade is to accomplish, the enemy his forces will encounter, the terrain the brigade will fight on, and the forces the division commander has allocated to him.

The task force is generally described by the type and number of maneuver companies assigned or attached to it.

Tank Heavy - More tank companies than mechanized infantry companies

Mech Heavy - More mech companies than tank companies

Balanced - Equal number of each type company

Pure - Only mech companies or tank companies assigned. (Referred to as a battalion rather than a task force.)

COMBAT SYSTEMS

Usually the number of companies assigned or attached to a task force will vary between two and four. In terms of its principal systems assigned or attached, the amount and type of combat power the task force represents will vary as shown below:

	RATIO	TANKS	HAW*	MECH PLT	APC W/50 CAL.	MAW	HVY MORT	LT MORT
TANK HEAVY	2-1	34	6	3	20	9	4	3
MECH HEAVY	2-1	17	12	6	58	18	4	6
BALANCED (MECH HQ)	2-2	34	12	6	58	18	4	6
PURE TANK	3-0	54	0	0	0	0	4	0
PURE MECH	3-0	0	18	9	78	27	4	9

*Number of HAW is illustrative only. Each is situation-dependent as discussed later.

ADDITIONAL ASSIGNED/ATTACHED ELEMENTS

Besides the maneuver companies, the task force will habitually have a variety of elements either assigned, attached, under operational control or in support, such as:

- ATGM
- Communicators
- Artillery Batteries
- Mortars
- TACAIR Sorties
- Attack Helicopters
- Scouts
- Bridging
- Engineers
- Air Defense
- Combat Service Support Elements

Tanks and mechanized infantry battalions are similar in organization, each having a headquarters company, maneuver companies and a combat support company. The headquarters company provides command control, administration, and combat service support. The combat support company provides reconnaissance, surveillance, air defense and indirect fire support. Nevertheless, there are some important differences in the combat, combat support, and combat service support found in the two

battalions and in the headquarters of their companies.

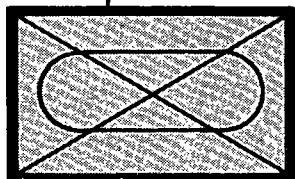
These differences must be considered whenever brigade and task force commanders alter the task organization. The maintenance, recovery and aidmen elements accompanying a unit departing its parent battalion should be covered in the brigade SOP. However, the TOW and AVLB elements, and occasionally the 81mm mortars, should be situation dependent.

PRINCIPAL DIFFERENCES: TANK AND MECH BN AND CO HQS

	MECH BN HQ AND CS CO	TANK BN HQ AND CS CO	MECH CO HQ AND WPN PLT	TANK CO HQ
TOW	12 (16 in USAREUR)	0	2	0
81mm MORTARS	0	0	3	0
AVLB	0	2	0	0
TANK MAINT ELEMENTS	NO	YES	NO	YES
APC MAINT ELEMENTS	YES	MINIMAL	YES	NO
TANK RECOVERY VEHICLES (M88)	0	2	0	1
LIGHT RECOVERY VEHICLES (M578)	3	2	1	0
AIDMEN	23	10	0	0

THE MAJOR COMPONENTS: CAPABILITIES AND LIMITATIONS

To properly task organize, brigade and task force commanders must have a clear understanding of the capabilities and limitations of the major building blocks or components they have available to allocate. Brigade commanders generally think in terms of the *number* of TOW weapons, tank companies and mech infantry companies to assign, and which task force to weight with available artillery, air defense, TACAIR, attack helicopters, and engineers. Task force commanders think in terms of TOW sections, tank platoons and mech platoons, as well as the distribution of other available support.



The Mechanized Infantry Platoon consists of 38 infantrymen mounted in four APC and organized into a platoon headquarters and three 11-man squads. Armament consists of three Dragon trackers (currently without night sights), four cal .50 machineguns, five M60 machineguns, 28 rifles, six grenade launchers, four pistols, and LAW and mines issued according to the situation. When required to dismount, a minimum of a driver and gunner (the mounted team leader) usually remain with each APC, leaving a maximum of 30 personnel available for dismounted operations.

CAPABILITIES

- Protect tanks and ATGM from dismounted infantry and AT gunners.
- Move mounted as rapidly as tanks, swim streams and negotiate some soft surfaces restrictive for tanks.
- Suppress and kill soft targets with machineguns and small arms while moving.
- Kill tanks and thinner skinned vehicles with Dragons out to 1000 meters and LAW out to 200 meters.
- Dismount to:
 - Clear woods, buildings, obstacles and dug-in positions.

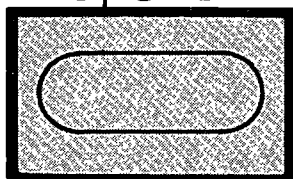
- Conduct infiltration attacks.
- Conduct limited air assault operations.
- Secure prisoners.
- Dig in and hold ground against a dismounted infantry assault.
- Provide security—patrols and OPs.
- Ambush mounted or dismounted enemy.
- Lay mines.

LIMITATIONS

- APC can be destroyed by ATGM, AT guns, tanks, BMP cannon, mines or a direct hit by artillery or airstrike.

- When dismounted and dug in, infantry is vulnerable to:
 - Tanks, if improperly employed on forward slopes with inadequate cover and concealment.
 - Automatic small arms fire if frontal cover is inadequate.
 - NBC attack.
 - Direct hit by artillery, if overhead cover is inadequate.
- When dismounted and not dug in, infantry is particularly vulnerable to:

- Tanks
- Small arms
- NBC attack
- Artillery and mortar fire
- TACAIR



The Tank Platoon consists of five tanks manned by 20 personnel. It is organized into a heavy section of three tanks and a light section of two.

CAPABILITIES

- Mobility, armor protection and firepower.
- Ability to kill tanks and soft targets at long ranges.

- Relative invulnerability to artillery and small arms.

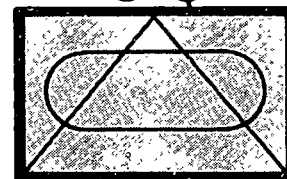
LIMITATIONS

- Vulnerability to ATGM, AT guns, tanks, and mines.

- Slow speed in crossing water barriers.

- Difficulty in identifying infantry and AT gunners in close terrain.

The TOW Section commanded by a Staff Sergeant section leader, consists of two TOW squads, each with a TOW launcher mounted on an APC. The TOW squad consists of the leader, gunner, assistant gunner and driver. One TOW section is organic to each mech infantry company. The antitank platoon of a mech battalion has an additional six sections (12 TOW). USAREUR scout platoons of mech and tank battalions have an additional four TOW.



CAPABILITIES

- Mobility equal to the tank and mech platoons.
- High probability of kill against armored vehicles out to a range of 3000 meters.

LIMITATIONS

- Vulnerability to ATGM, AT guns, tanks, BMP cannon, mines, or direct hit by artillery or airstrike.
- Gunner exposed while firing and, therefore, vulnerable

to suppression by small arm, artillery, and mortar fire.

- Slow rate of fire.
- Currently it has no night sight.

HOW TO TASK ORGANIZE

Task organizing distributes available assets to subordinate control headquarters by either attaching, placing in direct support or under the operational control of the subordinate.

FLEXIBILITY IS A PREREQUISITE FOR RAPID REORGANIZATION

Peacetime training in the intricacies of combined arms teamwork is facilitated if brigade and task force SOP specify a "normal" task organization. If the same company, FO teams, engineer platoon, TOW sections, and other elements habitually report to the same task force headquarters, teamwork is enhanced. However, occasional diversions from the "normal" SOP organization is also useful, since flexibility in changing task organization should be another training objective. Such changes will be frequent in combat.

Regardless of the task organization in effect at a given time, when a task force commander is faced with a significant change in the combat situation, he should

consider reorganizing. Key questions to be considered by the task force commander are:

*Can I significantly improve the **mutual support** of infantry, tanks and TOW **within** the teams by changing the task organization?*

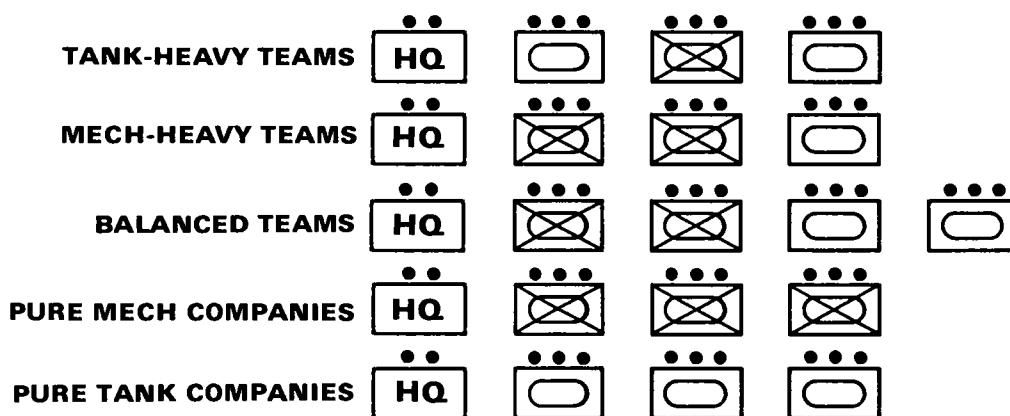
*Is the task force or one of the teams about to face a significantly different situation requiring a **different balance** of these components? (For example - approaching a town, clearing woods, cleaning out a trench line, approaching a stream, moving into the lead, defending in the open, defending in woods, etc.)*

*Can I **help a team** break contact or attack a position by sending another tank platoon or mech platoon?*

*Besides the three chief components, should I reassign or redirect **the efforts of my other combined arms assets**? (Mortars, artillery, TACAIR, attack helicopters, scouts, AVLB, engineers, air defense, combat service support.)*

The terrain on the other side of every cross compartment traversed may seem to dictate a new “best” task organization. However, the frequent temptation to reorganize should be resisted unless absolutely necessary, since each change takes time and may cause disruptions of control and service support.

The Maneuver System. The maneuver system of the task force consists of the three major components—tank platoons, mech platoons and TOW sections—organized under the control of a team headquarters. Usually the commander will be allocated from six to 12 platoons organized under two to four team headquarters, and from zero to eleven TOW sections. He may also be given attack helicopters. He decides how to allocate these components to the team headquarters during the formulation of his concept of the operation. Analyzing his mission, the enemy he expects to be up against, and the terrain he will fight on, he decides the best mix of these components and how they will operate as teams. Consistent with the categorization of task forces, he thinks of employing:



To one or more or all of the teams he organizes, he adds an appropriate number of TOW sections to support them in carrying out his concept over the terrain he expects them to traverse. *He will often find that the majority of TOW can best employ their long-range fire capability with the tank heavy or pure tank teams, since they will usually be operating over more open terrain than the mech heavy teams.*

He decides on the mix of his infantry, tank and TOW components after carefully considering the capabilities and limitations

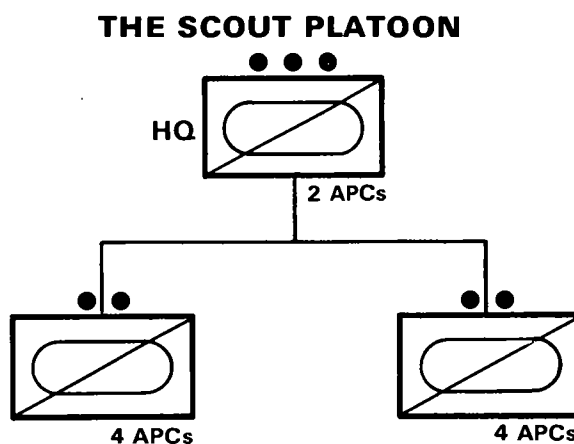
of each. He understands how the strength of each helps offset the vulnerabilities of the others.

On occasion he may decide to retain a small reserve under his control. This might consist of one or two tank or mech platoons. TOW are generally not in reserve. However, due to their long range, some may occasionally be placed in general support of the teams under the control of the AT platoon leader. The task force commander must control the maneuver of these TOW in general support as he controls the maneuver of his companies.

The Fire Support System. The task force has mortars (heavy and often light), artillery in direct support, and often will have TACAIR to multiply the combat power of the company teams. On rare occasions the commander may consider reassigning an 81mm mortar section from one team to another. Frequently, he will change the priority for fire support of the heavy mortar section from team to team. He influences this system either directly to the FSO or ALO or through his S3. The teams are in the system through their artillery and mortar FO. (*Details in Chapter 7*)

The Intelligence System. The task force has very few assets of its own to gather intelligence. The scout platoon, combat patrols from the teams, and four GSR teams comprise the total collection assets of the task force. These same assets, plus REMS and outposts, also comprise the **Security System.** The task force must look to brigade and higher headquarters to provide the timely intelligence they need but which is beyond their capability to collect. The S2 is the commander's representative for getting that information. He is not in the business of intelligence analysis—rather he spends the majority of his effort on insuring that every bit of *useful processed intelligence and combat information* has been made available to the task force and disseminated to all its elements. The task force commander, however, must personally direct the efforts of his intelligence system to insure that it will respond to his operational needs.

The scout platoon is an important component of these systems. This small, quick force consists of a headquarters with two APC and two scout sections with four APC each. Since there are only three men aboard each vehicle, they should not be used as infantry. As the “eyes of the commander” they can provide timely information on the direction of enemy approach when acting as an outpost line in the defense. They are also useful in screening a flank during the attack. In these roles they are generally under the direct control of the S3 or commander. There are other situations, however—wide frontage, movement to contact—where the commander may find his “eyes” see better under team control. This is equally true of the GSR teams. (*Details in Chapter 6*)



The Mobility - Countermobility System. This system has three components—**bridging, engineers and aerial delivered mines.** The commander looks to the S3 to assist him in the employment of this system.

As previously discussed, assignment of available AVLB needs careful attention by the brigade commander, since they are not organic to mech battalions. Other AVLB and bridges capable of crossing 60-foot spans are available from the Bridge Company of the Engineer Battalion.

Combat engineers, normally a platoon, are also usually in direct support of the task force. **In the attack** the commander may wish to weight the effort of the lead teams by attaching all the available engineers to assist in breaching obstacles. **In the defense** he may wish to have them concentrate on the installation of the most critical task force minefields, assist in preparation of a team strongpoint, or parcel them out to assist the teams in preparation of their own obstacles. Although he looks to the S3 to assist him in directing the engineer effort, it is the commander who decides the priority of effort.

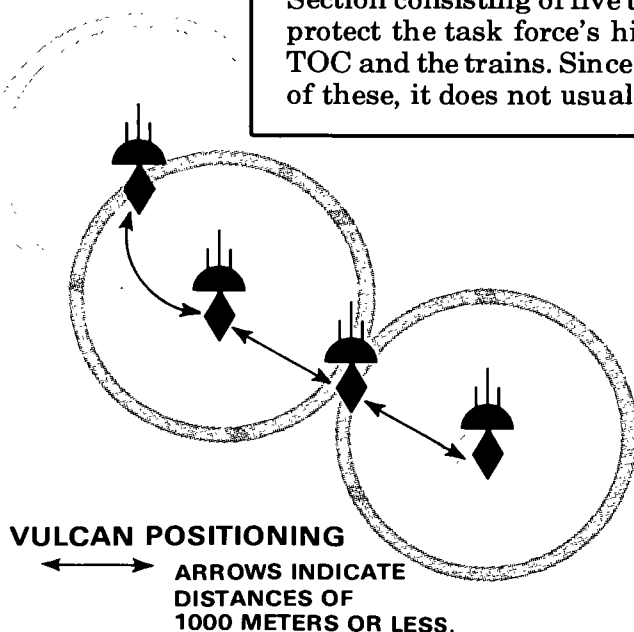
Laying minefields by hand is a long process. The enemy does not always accommodate by attacking where the minefield is. When this is the case, the task force can call upon the helicopter mine dispensers (and in the near future, on artillery delivered mines) to cover the unexpected avenue of approach. Since this is a highly time sensitive operation and not many assets are available to the division, *it should not be considered a normal alternative to a well implemented obstacle plan.*

When task forces are concentrated on the battlefield, such as in the defense against a breakthrough attack, authority for employing scatterable mines (either air or artillery delivered) is retained by the brigade commander. This is necessary to ensure that the employment of scatterable mines does not restrict the mobility of other task forces. *(Details in Chapter 7)*

The Air Defense System. The task force has an organic Redeye Section consisting of five two man teams. They are normally attached out to protect the task force's highest priority targets—the company teams, the TOC and the trains. Since the command group will normally be close to one of these, it does not usually require dedicated Redeye support.

A Vulcan platoon of four guns may also be in direct support or attached to the task force. The commander would position them to defend his highest priority and most vulnerable elements while insuring that no gun is outside of mutual support range of another (1000 meters). When the threat of air attack is low, Vulcan can also be used in a direct fire suppression role.

The S3 assists the commander in the employment of the air defense system. It is the Redeye platoon leader, however, who is tied in via radio to the air defense system of the larger force. *(Details in Chapter 7 and Appendix I).*



The Combat Service Support System. Many commanders make the task force executive officer their principal agent to direct this complex, highly important system. It includes:

- | | | |
|--------------------|---------------|------------------|
| ● Vehicle recovery | ● Supply | ● Administration |
| ● Transportation | ● Mess | ● Medical |
| | ● Maintenance | |

Each of these is covered in detail in Chapter 8. It is important to note here, however, that organizational differences between tank and mech battalions make vehicle recovery, maintenance and medical support important aspects to consider for every change in the organization.

The Command and Control System. When the task organization is completed and all the systems discussed so far are working internally, it is this system which gets them working together. It consists of:

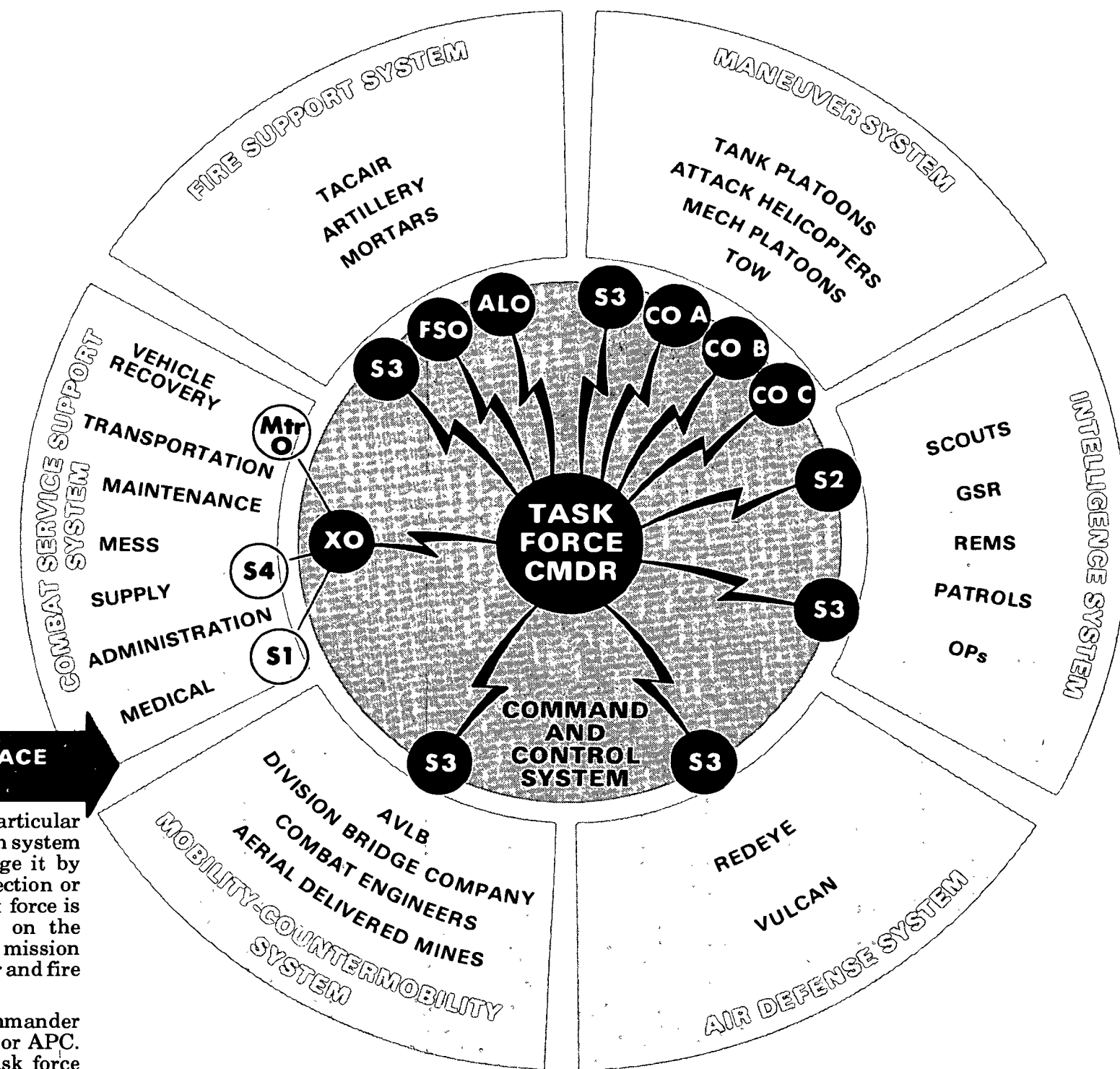
- 1 The command component - the commander and all those individuals he turns to to make the individual systems function.
- 2 The communications component - the links that allow the commander to direct the systems to work together.

EXAMPLE OF TASK FORCE COMMANDER'S INTERFACE WITH HIS OPERATING SYSTEMS

Command is a very personal thing. Who is in and who is out of the Command and Control System circle, and which systems they assist the commander in directing, will vary from commander to commander. Each will have his own variation of the diagram. One commander may turn to the S1 and S4 directly for the operation of the combat service support system, using the XO for other matters. Another may interface with the combat support company commander on matters pertaining to the scouts and Redeye, not calling on the S3.

Regardless of the diagram for a particular task force, the objective is to get each system so that the commander can manage it by exception involved only to give direction or solve a major problem. When a task force is operating like that, he can focus on the systems most directly impacting on mission accomplishment—fire and maneuver and fire support.

In heavy combat the task force commander normally commands from his tank or APC. On the modern lethal battlefield task force commanders can survive only in armored vehicles.



Fold this page out for:

- THE COMBAT SERVICE SUPPORT SYSTEM
- THE COMMAND AND CONTROL SYSTEM
- Example of Task Force Commander's Interface with his Operating Systems

COMMANDERS NORMALLY LOCATE AS SHOWN HERE:

CONDITIONS	TANK BATTALION HQ	MECH BATTALION HQ
IN HEAVY COMBAT WHEN HE MUST BE AT A CRITICAL PLACE		
DURING LULLS WHEN THERE ARE MANY SMALL ACTIONS WHEN TASK FORCE IS OPERATING ON A BROAD FRONT WHEN HE NEEDS AN UPDATE ON THE OVERALL SITUATION		
COMMANDERS USE HELICOPTERS AND JEEPS FOR RAPID TRANSPORTATION. ... NOT FOR COMMAND IN HEAVY BATTLE		

THE TASK FORCE:
CAPABILITIES AND
LIMITATIONS

In terrain suitable for employment of armored forces, tank and mechanized infantry task forces can apply all their inherent combined arms mobility, firepower, and shock action to:

- Move to contact independently, or as part of the advance covering force, flank, or rear guard of a larger force.
- Attack to penetrate or envelop prepared enemy defenses.
- Conduct exploitation and pursuit operations as part of a larger force.
- Conduct reconnaissance in force operations and raids.
- Attack to seize and clear villages and strip areas.
- Continue operations in all weather and visibility conditions.
- Operate in an NBC and EW environment.
- Defend or delay in sector as part of an active defense.
- Operate as part of the covering force of the larger unit.
- Move rapidly laterally or forward to occupy and defend battle areas.
- Prepare and defend from battalion or company size strongpoints.
- Conduct river crossing operations.

The same characteristics which make tank and mechanized infantry battalion task forces so suitable for employment on armor-favorable terrain also limit their capabilities in other environments. In particular:

- Task forces can operate in large forests, towns, cities and mountainous areas only by sacrificing much of their mobility and long-range engagement advantage.
- Task forces required to conduct air assault operations leave the vast majority of their firepower and ground mobility behind. They should be used in this role sparingly, and only when rapid link-up with their ground elements can be effected.
- The mobility of armored/mechanized task forces is generally restricted when conducting jungle operations.

HOW TO MAKE IT WORK

The Commander's Concept of Operation. The commander's concept drives the planning process before the battle. It dictates the initial action of all elements during the battle. It also indicates appropriate courses of action as the battle develops. It is the common thread that runs through everything the TF intends to do and does. Plans are a sophisticated, orderly expression of the concept. Orders and the actions of the various elements are the expression of the concept.

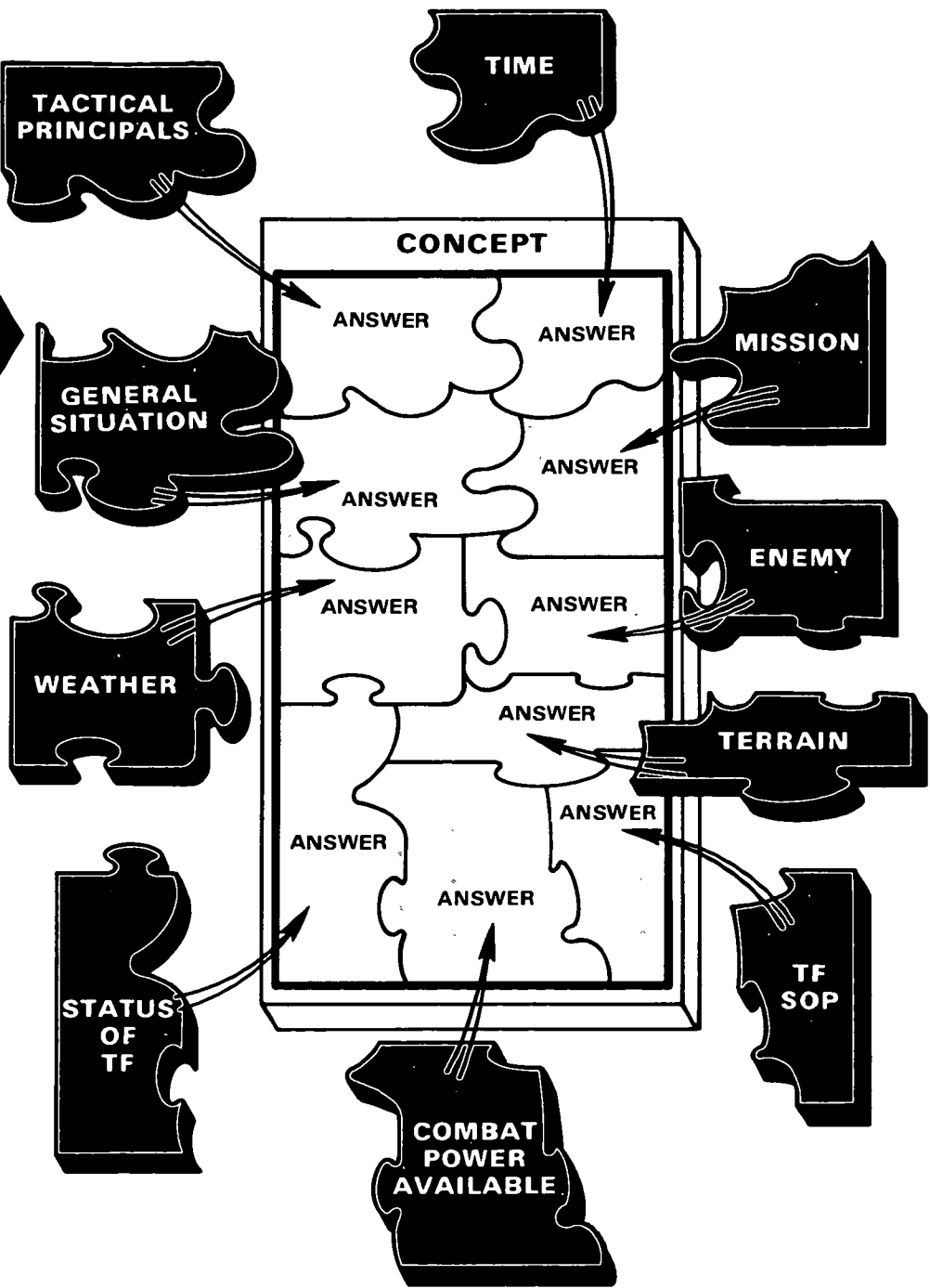
The commander always has a concept in mind for the employment of his task force. He builds his basic concept on an in-depth understanding of the always applicable precepts for employment of his organization. The more he knows, the more he develops the concept. When he is given a mission, he refines his picture as the situation shapes up. When he has the basic input, he is then able to visualize a scheme for the unit's overall employment. The scheme considers the actions of specific elements, critical situations likely to arise, and the internal workings of the task force. Also, the scheme allows for the unit's interaction with the enemy, with higher headquarters, fire support agencies and other combat support, combat service support, and friendly maneuver units. He knows what he has to do, and he knows, conceptually and in detail, how the battalion task force will do it. He

keeps his principal subordinates and staff officers updated on this concept.

One tool for the orderly development of a concept is the estimate of the situation. Plans and orders are the results of estimates. An estimate of the tactical situation to determine the best way to accomplish a given mission is called an *operation estimate*; when made by a commander, it is called the *commander's estimate*. Making an estimate of the situation is a natural process. It may require a few seconds or a few hours, depending on the complexity of the mission and situation, the commander's experience, and the time available. The commander's estimate is a rapid, mental evaluation of those factors having a bearing on mission accomplishment. It follows a logical sequence and answers with facts or best judgment, the following questions:

MISSION ● What must be done and when?	COURSES OF ACTION ● What <i>general</i> ways are there to use these forces on this terrain to accomplish this mission?
SITUATION ● What enemy forces oppose and where are they? ● What is the terrain and how can it be used? ● What forces are available? ● What are other friendly forces doing? ● What are the effects of weather and visibility?	ANALYSIS OF COURSES OF ACTION ● What can be gained and what may be lost in each of these ways? COMPARISON OF COURSES OF ACTION ● Which of these ways is best in this situation? DECISION AND CONCEPT ● What must be the scheme of maneuver, organization, and plan for fire support to best accomplish this mission with least damage to the force?

INPUTS TO THE COMMANDER'S CONCEPT



Plans and Orders. TF plans and orders are the expression of the commander's concept of operation. The procedure for planning, coordinating and the issuing of orders invariably requires some compromise between the necessity for speed and responsiveness and the need for orderly procedure and detailed planning.

**THE TF COMMANDER MAY HAVE
A FEW DAYS—OR ONLY A
FEW HOURS**

The commander's allocation of the time available is critical. If the maneuver elements do not get the time to respond according to plan at the critical time and place, then they will likely be heavily penalized. The damage may be irreparable. On the other hand, because the TF has at its disposal the full potential of the combined arms team, a good deal of planning and coordination is needed to bring the full weight of the TF to bear. If necessary the commander should err on the side of more time for the company teams.

Before a battle the TF commander and staff may have a great deal of time—even days—to consider in some detail what they intend to do to build a concept and the detail of how they will do it. This process culminates in an operations order that presents in logical, commonly understood language the plan for the battle. During this "permissive time" situation the TF commander can function not only as order giver but also as a member of the planning group. He has time to attend to a certain amount of detail. The resulting plan is the detailed expression of the concept.

In other circumstances the Bn TF commander may have only a few hours, or even minutes before execution of a mission. In this case the order will be abbreviated. It will probably not be written out, reproduced, and distributed. The commander will probably give the order to subordinates from notes—based on the five paragraph field order format—and from a map, an overlay, or a drawing on the ground. Whenever possible, the commander gives the orders to his subordinates at a site where the terrain can be viewed. Because time is so short the commander must give his subordinates a warning order as soon as possible. He must update the teams on the thrust of the new

mission, and the general scheme of maneuver very quickly. This allows executive officers to get the troops on the road while the commanders and staff go forward to work on the details of the plan.

During the heat of battle the commander only has time to monitor critical parts of the action, judge the situation, make decisions and issue orders. These orders are oral, brief and to the point. Most often they are instructions for movement and missions for the teams. If the teams and other elements of the battalion are familiar with the commander's concept of operation and the original order, these brief orders should be adequate for immediate and correct response.

When time permits, the task force commander and his staff plan operations in detail, following the sequence of command and staff actions described in FM 101-5. However, if a requirement for *immediate action* precludes detailed planning, decisions are based on the *commander's concept*. This does not mean that the staff is not consulted or used during fast moving situations. On the contrary, lack of time for detailed planning places increased emphasis on efficient staff work to insure continued operations. Under such conditions, routine actions must be planned for and executed by the staff on their own initiative, consistent with the commander's overall concept.

DURING THE BATTLE, TIME MAY EXIST ONLY FOR A QUICK DECISION FOLLOVED BY A RAPID ISSUANCE OF ORDERS

IN THE ABSENCE OF ORDERS, KNOWLEDGE OF THE COMMANDER'S CONCEPT DICTATES ACTION.

CONDITION	PLANS				ORDERS		
	TIME AVAILABLE	TYPE OF PLAN	FORMAT		FORM OF ORDER	FORMAT	MANNER OF DELIVERY
BEFORE BATTLE	PLENTY	DETAILED CONCEPT OF OPERATION	ORAL AND/OR WRITTEN	➔	DETAILED ORDER	WRITTEN	IN PERSON
DURING A LULL IN BATTLE	SOME	UPDATED CONCEPT	ORAL	➔	FIELD ORDER	ORAL	IN PERSON
DURING HEAVY CONTACT	NONE	➔ ➔ ➔ ➔ ➔ ➔	➔ ➔ ➔ ➔ ➔ ➔	➔	COMMANDER'S ORDERS FOR MANEUVER AND FIRE SUPPORT	ORAL	BY RADIO

ORDERS DURING HEAVY BATTLE

These oral orders, from the TF Commander, are short and to the point. They normally contain instructions for maneuver and for fire support. They are built on the original concept and original order. They automatically trigger many other actions—other than those specified.

ORIGINAL CONCEPT

Mark men then two companies be ready to move in 10 min. Men then when the when then men.

Cover movement with smoke when when when.

Top off with POL as soon as close in new BP when the when then men.

THE ORDER

"B Co move to battle position 42. Begin move 10 min from now. Occupy BP 42 and engage enemy. Expect enemy force of at least one tank Bn to approach from northeast. Estimate enemy to close your position in 1½ hours from now. I'll meet you at BP 42 in 20 min. Report closing."

ORIGINAL ORDER

1. Then when then when
2. Then when then when
3. a. Be ready to move in 10 min; cover movement with smoke when when
b. Then when when when when then when
4. Fuel resupply automatic as soon as Co teams close in new positions.
5. Then when when when when.

ACTIONS

1. B Co moves on time. The company commander and the other team leaders knew they had to be ready to move in 10 min (from the original concept and the detailed Bn order).
2. The B Co forward observer brings in prearranged smoke. The Bn Fire Support Officer alerted the artillery as soon as he knew from the Battalion Commander that B Co would move.
3. The Bn POL section met B Co on reverse slope of BP 42 and refueled them. (Bn TOC notified POL section.)

The Troop Leading Process. Battalion task forces must be ready to execute a new mission in a matter of minutes, or, at the most, within several hours. The troop leading procedures enable the commander to quickly issue adequate orders and the necessary instructions to his subordinates. The process applies to all command levels, but the lower the echelon, the more simple and direct the process is.

Recurring use of the troop leading steps will lead to an almost instinctive way of thinking for platoon, company, and battalion commanders. Once the battle starts, subsequent orders and responses must be fast, effective, and simple. This requires

teamwork and an understanding which permits commanders to turn a mission-type order into action. This action must support the plan of the next higher commander without detailed instructions.

The process allows available time to be used efficiently for preparation to respond to new missions. The process is not rigid; commanders modify it to fit the mission, situation, and available time. All the steps, however, should be covered, even if each takes only a few seconds. Some steps are taken concurrently, some go on continuously throughout the mission.

The troop leading steps are:

- | | |
|--|-------------------------------------|
| STEP 1. Receive the Mission | STEP 5. Reconnoiter |
| STEP 2. Issue Warning Orders | STEP 6. Complete the Plan |
| STEP 3. Make a Tentative Plan to Accomplish the Mission | STEP 7. Issue Orders |
| STEP 4. Initiate the Necessary Movement Sequence | STEP 8. Supervise and Refine |

1

RECEIVE THE MISSION

Leaders may receive a mission in either an oral or written operation order (OPORD) or a fragmentary order (FRAGO). Upon receipt of an order, the leader analyzes his mission to be certain he understands what is to be done, and plans the use of available time. Often the most critical resource when a battalion task force receives a new mission is *time*, especially daylight hours. The commander *must not* waste time which should be used by company team, platoon and squad leaders for reconnaissance and planning of their own. A reasonable rule of thumb is: *use no more than one third the available time for planning by the battalion task force headquarters and leave two thirds for the commanders and leaders of subordinate units.* Thus a battalion task force commander given six hours to prepare for an operation uses no more than two hours and provides at least four to subordinates. Company team commanders could have about one hour and fifteen

minutes while allowing platoon leaders 2 hours and 45 minutes.

2

ISSUE THE WARNING ORDER

A leader gives a warning order immediately after receipt of a warning order from higher headquarters. He does this by telling his subordinates *the mission, the time it starts, and the time and place for issuance of the actual order.* This permits better use of time available to plan and prepare. A warning order is usually issued orally.

3

MAKE A TENTATIVE PLAN

The commander should make a tentative plan of how he intends to accomplish this mission. When the mission is complex and time is available he may make a fairly formal mental estimate, following the procedures outlined in *FM 101-5, Command and Control of Combat*

Operations. When the mission is uncomplicated or time is short, he will make this mental estimate very quickly. The commander knows his own situation, knows as much about the enemy as he can under the specific circumstances, knows the mission and what it requires, and applies all of this to the terrain in the assigned area. The tentative plan he develops is the basis for *coordination, unit movement, reorganization, if any, and reconnaissance.*

The battalion task force mission will usually be stated in specific terms as to WHO, WHAT, WHEN and WHERE. The HOW is left to the commander to decide. He must apply the fundamentals so that he optimizes the capabilities of his organic, attached and supporting systems, minimizes their vulnerabilities, and accomplishes the mission. His tentative plan is a direct, simple expression of HOW.

4

INITIATE NECESSARY MOVEMENT

The commander will have many important matters on his mind at this point. Often the driving consideration is the absolute necessity to make good use of the available time so that company team commanders and their subordinates can reconnoiter, move, prepare, and fit their units and weapons to the ground. If the task force must move a considerable distance, it should be set in motion immediately based on the first rough concept. This permits platoons and squads to get on the ground early. Then the commander needs to get out on the ground and see for himself how to best employ the combat power of his battalion task force. The commander must have a smooth system, a standing operating procedure, to permit all these actions to proceed simultaneously so that no time is wasted. Equally important are the movement SOP of the team commanders. *Brief oral orders must*

be able to generate instant movement by every element of the team. For example, orders like the following will be commonplace:

“Change of mission. Move from your battle position and follow me north on Route RED. Order is second platoon, first platoon. Third platoon overwatch and follow. Move out now.”

When the commander is called to receive an order, he would take with him some other person of authority who can return to the unit to issue a follow-on warning order, prepare the unit, and if necessary, move it. This person can be the executive officer or S3. With these activities under control, the commander can make his reconnaissance, confirm or modify his tentative plan, and prepare to issue his final order while the task force elements are simultaneously moving to their new locations for their new mission.

5

RECONNOITER

To make best use of his forces and fires, the commander must see the assigned terrain. If possible, he meets his team commanders on the terrain. There will be times when he can make only a map reconnaissance. But if any time at all is available and if the commander has the first four steps in hand, he *must* get out on the terrain. It is during this reconnaissance that the commander confirms his tentative plan or modifies it to magnify every advantage of his weapons and afford maximum protection for his troops. He will usually want some assistants with him to save time and to add their skills to his. Often he will want his fire support officer and may also include his S2, S3, and a combat engineer if engineers are available. If he can see only part of the assigned area, then he plans the detail for only that part of the operation. The

remainder is covered in general terms by telling team commanders to "be prepared to" take other actions.

6

COMPLETE THE PLAN

As a result of the reconnaissance, the commander may not alter his tentative plan, but he certainly will add detail. He will refine his concept and plan for fire support, and will focus upon specific tasks for all units, insuring that all fit together simply and effectively.

7

ISSUE ORDERS

Most orders are issued orally, sometimes from a hand written five paragraph field order outline and a sketch or overlay. If the battalion task force commander has made a reconnaissance, he will usually issue orders from a vantage point in the assigned area. This permits him to point out particular terrain features on the ground as well as on the map, and eliminates time which might be spent in driving back to a command post to speak to subordinates who would then drive forward to reconnoiter. The commander may issue overlays with his order, but more often he will have only his own map available with control measures sketched on it. He then requires

subordinate commanders to copy this information on their own maps. If the entire battalion task force is moving or is already involved in an operation, he may issue orders over the radio or by messenger, or may meet each commander in turn to instruct him face to face, while the unit continues its activity. *The commander should make absolutely clear his concept for the operation from beginning to end; that is, how he sees the battle being fought and what he expects from each subordinate leader. The commander should also prescribe what actions his subordinate leaders should take under foreseeable situations in the event the commander is out of communication for some reason.*

8

SUPERVISE AND REFINE

The commander and his staff must supervise to insure that all necessary preparations for conduct of the operation are being made. These include coordination, reorganization, fire support and engineer activities, maintenance, resupply, movement and any other required actions.

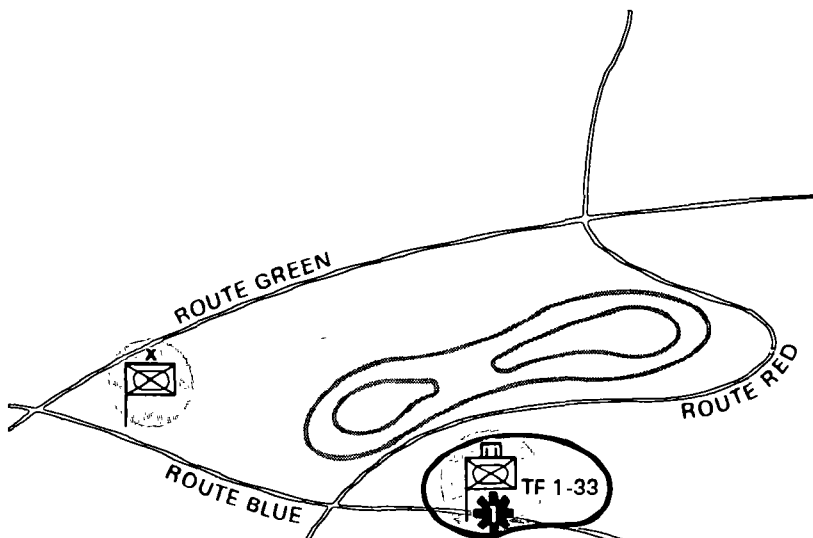
Once the operation is under way, the commander must insure that the plan is followed and must issue fragmentary orders to modify or refine the operation as the situation develops. *The requirement to supervise is continuous and as important as issuing orders.*

Example of a Troop Leading Sequence. The following example illustrates one way that a task force commander may put the troop leading process to work in a given situation. There are many feasible “solutions” other than this one.

In this situation, TF 1-33 Mech is in reserve located in an assembly area. The division has been in combat for some time and has been conducting defensive operations. There has been a lull for the past several hours, but renewed attacks are expected shortly. Radio listening silence is in effect.

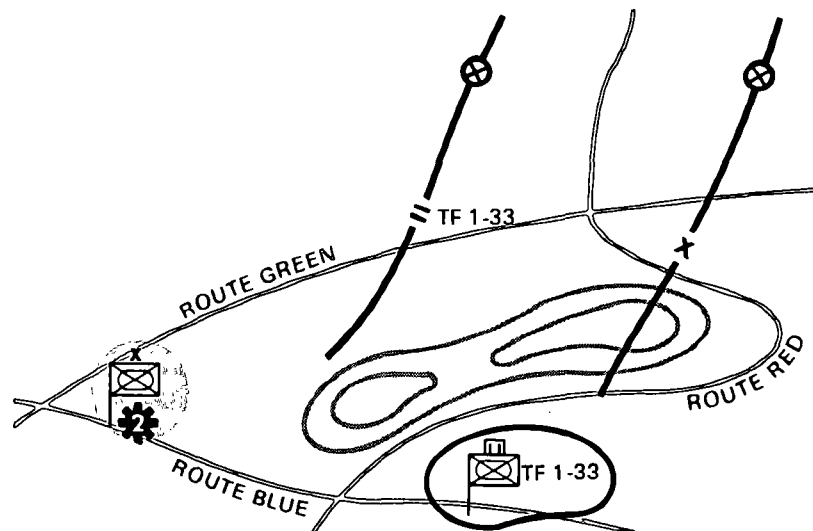


0600 A helicopter lands at TF 1-33 tactical operation center. The pilot states that the task force commander is wanted at brigade headquarters immediately to receive a mission. The helicopter is at the TF commander's disposal. S3 tells the TOC to issue a warning order to get ready to move. TF commander, S3, and FSO fly to brigade headquarters. Bn XO will supervise preparations (unit SOP covers “Preparation for Movement”) while the commander and S3 are gone.



0620 TF commander, S3 and FSO receive order, part of which is “TF 1-33 Mech will defend in the right portion of the brigade sector. Be in position as soon as possible, but not later than 0900.”

Enemy attack—previously expected from Northwest—is now expected from Northeast. TF 1-33 sector has previously been part of a screening operation by a cavalry unit.

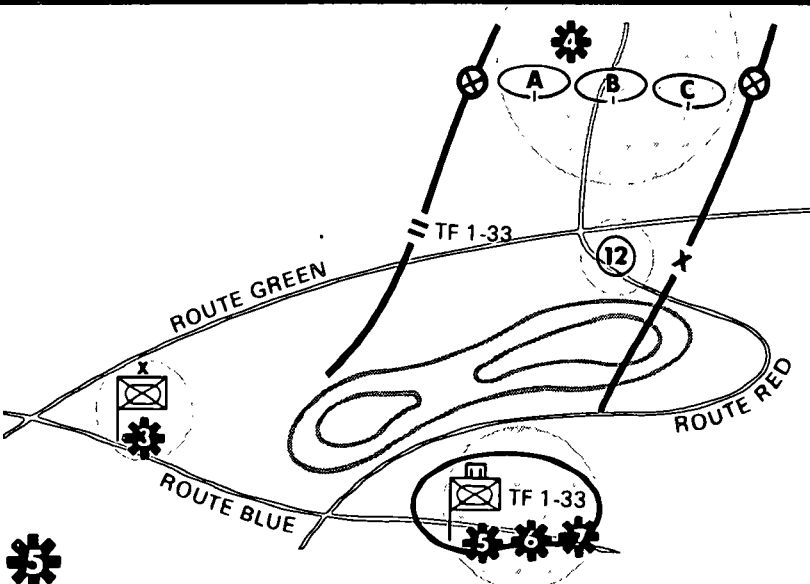




0630 Commander, S3 and FSO huddle after receiving the order. The commander, from a quick look at the map, determines the appropriate locations for his teams. He outlines other main points of his tentative concept. He tells the S3 that he wants to meet the team commanders, S3, ALO, scout platoon leader, and antitank platoon leader at checkpoint 12 at 0720. (This "orders group" assembles by SOP). The S3 returns by jeep to the TF command post. (By SOP the S3's jeep followed the S3 to the Bde TOC.)



0645 Commander and FSO recon the sector by helicopter to identify potential battle positions and identify enemy avenues of approach.



0650 S3 returns to the TOC and briefs team commanders and staff on the tentative plan. "Orders Group" will leave immediately. Routes and checkpoints are coordinated.



0700 "Orders Group" departs (platoon leaders accompany team

commanders in order to begin their reconnaissance as soon as possible. 1st Sgts also go forward to assist guiding company teams into position.)



0710 Main body moves, controlled by TF XO (team XO's control their teams).

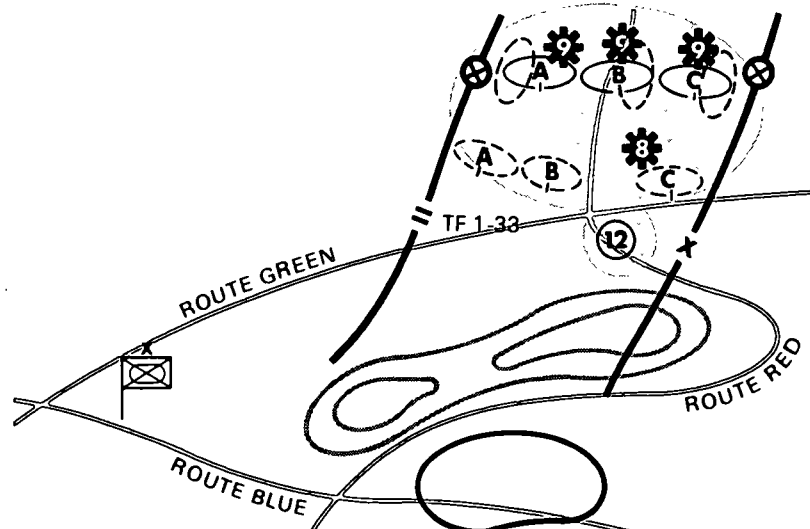


0720 TF commander meets team commanders at CP 12. He takes them to a hill top where they can see the battle area. Here he expands on his tentative order. In particular, as a result of his reconnaissance, he modifies the locations of the team battle positions and indicates tentative successive battle positions. He shows them the positions on the ground and from the map. He highlights principal findings of his reconnaissance, and outlines his concept of fire support.



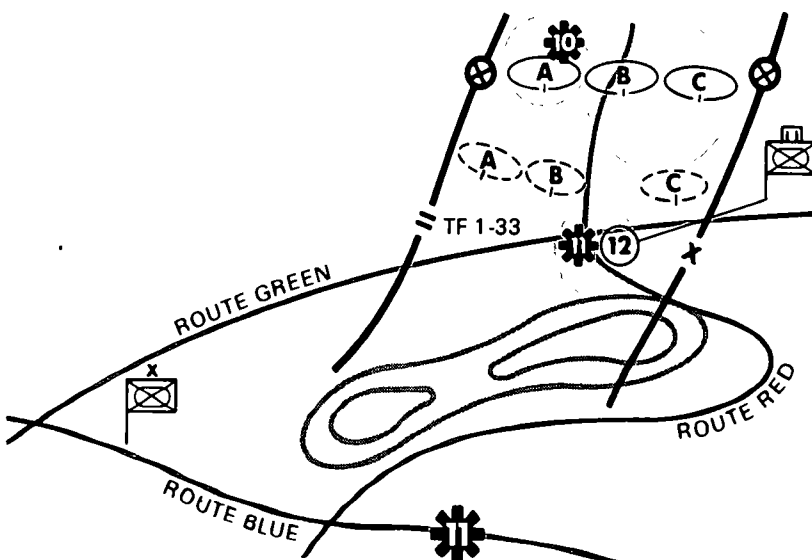
0735 Team commanders arrive at their battle positions and point out platoon positions to platoon

leaders. 1st Sgts return to CP 12 to pick up their respective company teams.





0735 TF commander goes to Tm A psn with the team commander. He spends a few minutes going over the main things he wants the team to do, pointing out boundaries, target reference points, common check points and landmarks, and describing critical aspects of the terrain in front of the position. He then goes to Teams B and C and does the same thing. These company teams do not delay their work waiting for the TF commander. He is simply expanding on the scheme he described earlier—on the ground! The TF commander then returns to CP 12 (the new TOC location) to meet with the S3 and FSO and complete the details of the plan—



particularly the fire support. S3, FSO, and ALO get together to work out final details of the plan.

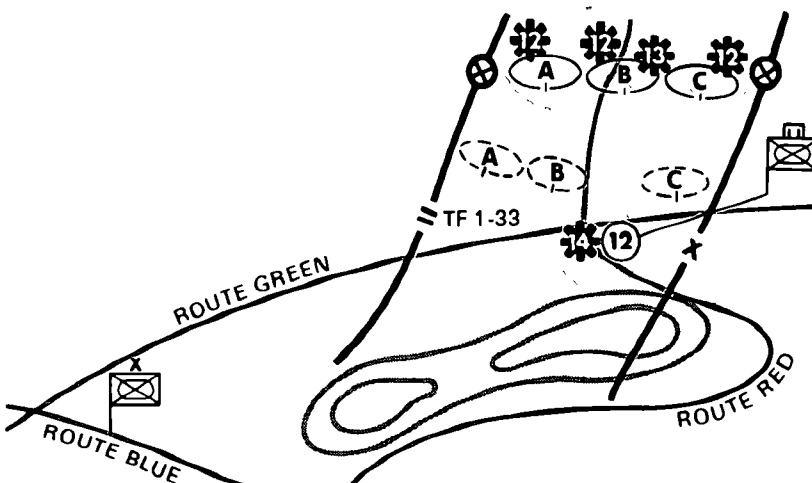
0800 Main body closes at CP 12, teams are met by their 1st Sgts.



0825 Company teams close in position.



0830 Commander and S3 issue complete order to the team commanders and staff from a vantage point on Team B's battle position. Order now includes such detail as fire support, engineer tasks, and combat service support.



0845 TF commander and team commanders supervise detail of plan and ongoing preparation of positions. Team commanders recon successive battle positions.

In this example the TF:

1. Made the best use of available time by initiating planning and necessary movement *simultaneously*—not sequentially.

2. Operated in an orderly, efficient manner.

3. Guaranteed responsiveness and efficiency through the application of their unit SOP.

4. Did not break radio listening silence.

SUMMARY

The battalion task force combines tanks, mechanized infantry and other units under a single commander. This combination takes advantage of various fire and maneuver and support units to meet the situation as viewed by the commander. The task force commander must:

Realize the capabilities and limitations of each component.
Organize the task force for the benefit of the whole.
Be aggressive, competent in his leadership, and confident in his decisions.
Create teamwork among his subordinates, so he can expect immediate and proper response to his plans and orders, and adherence to his concept of the operation.



CHAPTER 4

Offensive Operations

OVERVIEW

THE VICTOR IN BATTLE MUST ATTACK. Although defensive operations may weaken the enemy and prevent him from obtaining his objectives, it is the attack which brings decisive results. A defender, even a relatively weak one, has significant advantages. He knows the terrain because he's on it. His weapons are sited and emplaced to maximize capabilities and to minimize vulnerabilities. He can see the attacker before being seen. But *he does not have the initiative*; the attacker chooses the time and exact place of the battle. By taking the initiative, the attacker can penetrate or outflank the enemy, break his support and his command and control, and then destroy his disorganized remaining forces. The battalion task force commander must know the concept and fundamentals of the attack, how the opposing force will defend, how to apply his units to the battle using proper techniques and tactics, and how to direct the battle.

CONTENTS

	PAGE
OVERVIEW	4-1
CONCEPT OF THE OFFENSE	4-2
FUNDAMENTALS OF OFFENSIVE OPERATIONS	4-3
HOW THE ENEMY DEFENDS	4-5
Security Zone	4-5
Main Defense Belt	4-5
Conduct of the Defense	4-7
FORMS OF OFFENSIVE MANEUVER	4-7
TYPES OF OFFENSIVE OPERATIONS	4-10
Movement to Contact	4-10
Hasty Attack	4-12
Deliberate Attack	4-23
Exploitation and Pursuit	4-40
Reconnaissance in Force	4-41
Raid	4-42
HOW TO CONDUCT A BYPASS	4-44
HOW TO ATTACK WHEN VISIBILITY IS LIMITED	4-47
HOW ATTACK HELICOPTERS ARE USED IN OFFENSIVE OPERATIONS	4-52
HOW TO BREACH OBSTACLES	4-57
SUMMARY	4-59

CONCEPT OF THE OFFENSE

Battalion task forces can expect to participate in offensive operations when brigade, division or corps commanders have decided the time is right to:

- *Complete the destruction of attacking enemy forces*
- *Penetrate and destroy defending enemy forces*
- *Seize key terrain*
- *Deprive the enemy of resources, demoralize him, and destroy his will to continue the battle*
- *Deceive and divert the enemy*
- *Develop intelligence about the enemy*

The Generals concentrate task forces and massive fire support at the critical time and place; that is, when and where the enemy is weakest. The enemy may be weak in a particular place because his forces are thinly spread, because there is little or no depth to his defense, because his fire support or logistics are inadequate, because his units are demoralized from fatigue and casualties, because he is defending with the wrong type of force, or because he hasn't had time to organize a cohesive defense. Ideally, all those factors would be present at the point of attack.

The organization of which the task force is a part may be conducting any of the types of offensive operations discussed later in this chapter, or even defensive operations. However, when the task force makes contact and is ordered to maneuver against the enemy to destroy him, *it is attacking*. The concept of the attack is to find or create a weak point in the enemy's defense; suppress the firepower the enemy can bring to bear on that point; maneuver to it using cover, concealment, and mutual support to penetrate or envelop the weakness; and exploit success by attacking adjacent positions from the flank or rear, or continue the attack to the rear to destroy the continuity of his defense.

CONCEPT OF THE ATTACK

Find or create a weak point

- Attack weakness; avoid strength
- See the enemy
- Know his doctrine
- Know his dispositions
- Know his weapons' capabilities
- Lead at the front
- Obtain all available combat information

Suppress his firepower

- Concentrate fires on weakness
- Isolate the weakness by suppression and obscuration
- Integrate all available direct and indirect fires

Maneuver to the weakness to penetrate or envelop

- Understand the terrain
- Avoid fire traps
- Use cover
- Use concealment
- Use mutual support
- Use surprise
- Strike from an unexpected direction
- Strike at an unexpected time
- Have teams fire and maneuver
- Concentrate forces on one or two positions at a time
- Integrate fires with maneuver
- Shock and overwhelm

Exploit success

- Roll up adjacent positions
- Attack from flanks and rear

● Widen the penetration

- Protect lines of communication

or

- Continue the attack to the rear
- Maintain momentum
- Retain the initiative
- Maintain contact
- Disrupt his continuity
- Destroy headquarters, combat and combat service support
- Move faster than counter-attacking forces

or

- Prepare to destroy a counter-attack
- Understand enemy doctrine
- Maintain security

FUNDAMENTALS OF OFFENSIVE OPERATIONS

To make the concept work, certain basics need emphasis. The attack may succeed without full realization of every aspect of the concept, but failure to execute the fundamentals will bring disaster to the operation.

FUNDAMENTALS

1. SEE THE BATTLEFIELD
2. USE WEAPON SYSTEMS TO BEST ADVANTAGE
3. CONCENTRATE OVERWHELMING COMBAT POWER
4. SHOCK, OVERWHELM, AND DESTROY THE ENEMY
5. PROVIDE CONTINUOUS MOBILE SUPPORT

1 See the Battlefield. The first requirement at any level of command is to see the battlefield. This means know the enemy, know where he is and how his forces are set up, know his capabilities and vulnerabilities versus those of the task force, and know the terrain. The task force commander must know the capabilities of enemy weapons and he must understand the enemy's defensive doctrine: How he organizes strongpoints in depth, how he attempts to force the attacker into fire traps and then counterattacks with tank heavy reserves, how he employs obstacles.

The commander must be personally involved in seeking combat information and intelligence. He analyzes all available data from higher headquarters and asks for more. He uses patrols, ground surveillance radar,

and liaison with units familiar with the terrain and enemy to gain more information.

Fitting his unit to the terrain requires the commander to see and know the ground in the greatest detail possible. Since in the attack he will seldom be able to see over the first hill, he may have to depend only on his map reading skills.

Once the attack begins, leaders lead from the advancing edge of their units. The task force commander moves from vantage point to vantage point to see what his forward elements are encountering. By "feeling" the battle, he can influence the momentum of the attack.

2 Use Weapon Systems to Best Advantage. Every situation has a "best" mix of weapon systems. But in the attack, the situation changes rapidly. It is usually best to organize the company teams with a balanced mix of tanks, mechanized infantry, TOW, mortars, engineers, and air defense. This balanced mix provides the most flexibility for employment and is a good start point.

However, exceptions to the balanced team structure abound. For example, if the commander's concept is to penetrate with one team while two suppress, he may organize the penetrating force as a "shock team" of just tanks. Or he may want an "overwatch team" of TOW and tanks to overwatch a critical phase of the attack. If his concept is to overrun a position and then clear it, he might use a "shock team" followed by a "clearing team" of mechanized infantry. If obstacles must be breached or villages or woods cleared, a pure mechanized infantry team might be employed. If stealth is desired, he might organize a dismounted infantry night infiltration. If a flank needs significant security forces, he may augment his scout platoon with a tank platoon and GSR sections.

Regardless of the task organization the commander uses, he insures his weapon systems and his teams are fitted to the

mission, the terrain, and the enemy he expects to encounter. All must be mutually supporting, get the combat support they need and their organization changed as the situation dictates.

3 Concentrate Overwhelming Combat Power. If no enemy weaknesses can be found, one can be created through surprise, massive firepower, or isolation from mutual support. The enemy can be surprised either by the time of the attack or by its location or direction. Firepower (direct and indirect) can soften an area in the defensive lines. Suppression with direct fire, artillery and smoke against adjacent positions can isolate the area selected for concentration and penetration.

Attacking during limited visibility also isolates the penetration area from support by adjacent positions. Electronic warfare support (provided by the division) assists by disrupting the enemy's command and control.

Overwhelming combat power is usually thought of as a ratio of about 6:1; this requires a narrow front for a task force attack. Since an enemy battalion will likely defend with four to six platoons forward, the task force seeks to concentrate on one or at most two platoons at a time, a penetration width of about one kilometer.

4 Shock, Overwhelm, and Destroy the Enemy. The task force pushes through the weakness in the enemy's lines with all the mobility, firepower, and shock action it can muster. The task force moves quickly to piecemeal the defense by attacking against one platoon position at a time. Prepared positions are bypassed; cleared only when absolutely necessary. The speed of the attack adds much to the task force's security. If temporarily halted, the commander attempts to overcome the resistance with a hasty attack. He exploits success, constantly seeking new enemy weaknesses. He drives

relentlessly to the rear, disrupting enemy command and control, artillery, air defense, and service support to hasten the destruction of the defending force.

5 Provide Continuous Mobile Support. The violence and rapid momentum of the attack places severe demands on commanders and logisticians at all levels. Lines of communications must be secured

against counterattacks so that fuel, ammunition, repair parts, and other items can be pushed forward to the attacking forces. No operational weapon system should remain unmanned while crewmen are available elsewhere. Tank, ATGM, artillery and mortar ammunition will be used at high rates and must be replaced quickly. Vehicle crewmen must be adept at rapid refueling and rearming. Task force SOPs must specify how these difficult tasks will be performed.

HOW THE ENEMY DEFENDS

Understanding how the enemy defends is vital to planning and conducting a successful offense. The lesser number of unknowns facing the commander, the more confident and precise he can be. Knowing enemy doctrine gives him a context for applying his own moves. The attacking force may never face a defense as strong as that described here, but it must be prepared to do so.

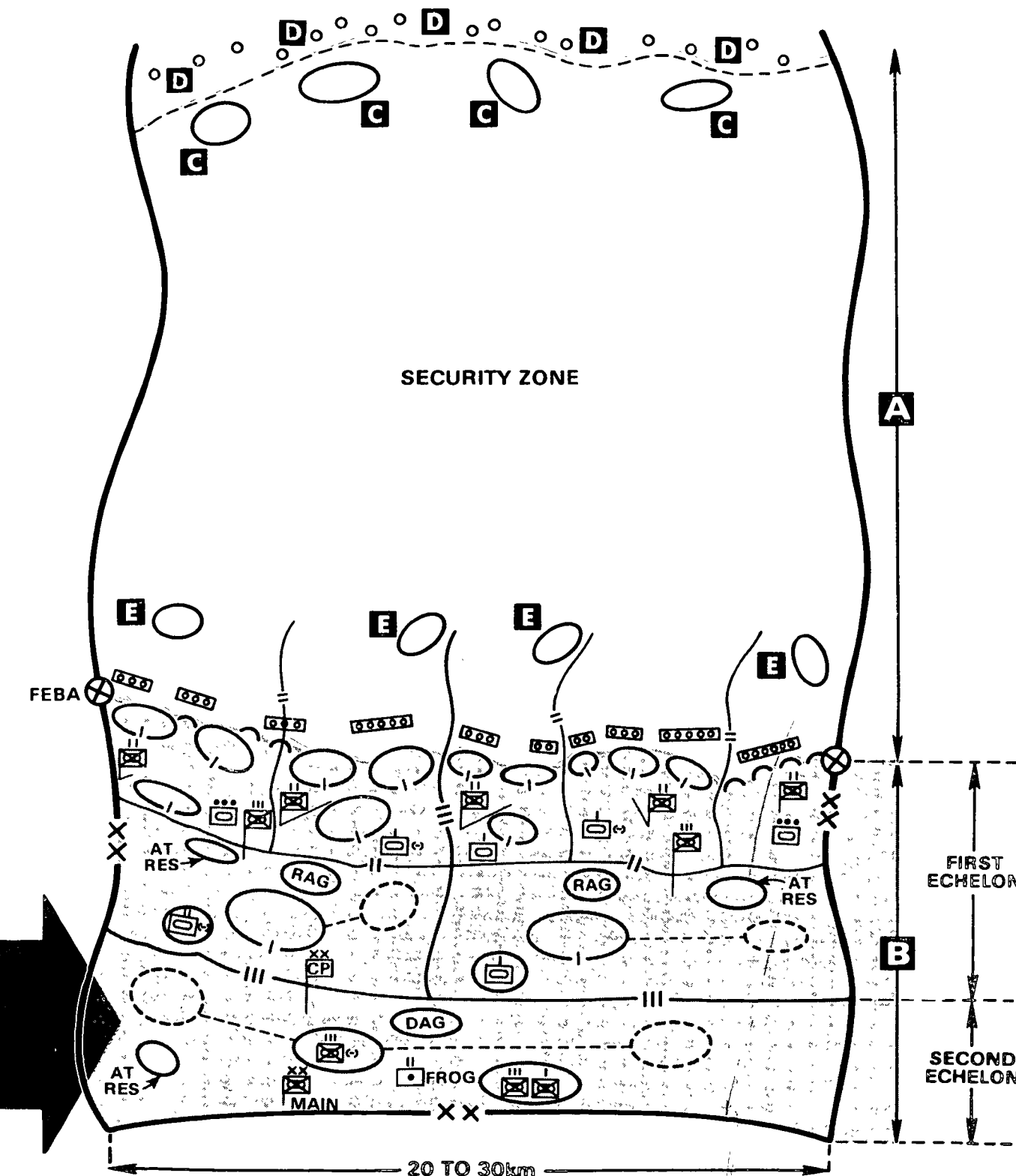
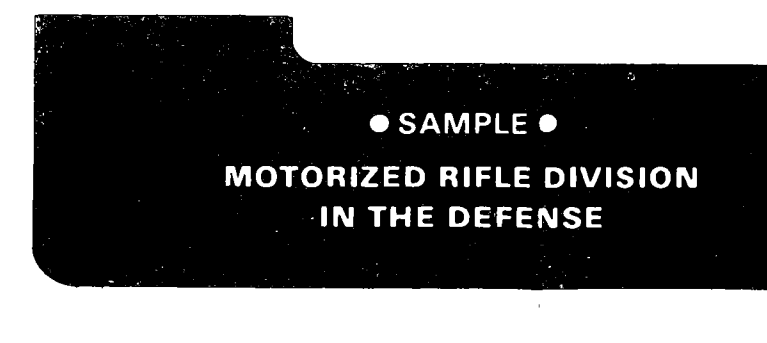
The purposes of the Threat defense are to gain time, to create a favorable situation for resuming the offensive by inflicting heavy losses on an opponent, to consolidate objectives, and to provide cover for withdrawing forces.

Defense in depth is the basic concept. The Threat establishes a series of defensive belts heavily supported by artillery, air defense systems, radioelectronic combat (REC) units, antitank weapons, engineer units and aviation assets. Each of these defensive belts contains a series of well-fortified strongpoints located on the most likely axis of enemy advance; alternate positions are prepared to counter shifts in the direction of attack.

Antitank defense is a basic ingredient of the total defensive operation. Antitank defense includes antitank strongpoints astride and along suitable tank approaches, primary and alternate firing positions prepared for occupation by tanks and antitank reserves, preplanned artillery

concentrations, and extensive use of antitank mines and other obstacles. Artillery, antitank weapons, air defense guns, tanks and assault guns are used in direct fire on tanks that have penetrated the defense.

The deliberate defense is organized in successive belts designed to provide depth to the defended area. Normally the defense consists of a security zone, a main defense belt, and a second and third defensive belt at echelons above division. Each defense belt consists of a series of mutually supporting, self-sufficient company and battalion-size strongpoints echeloned in depth. Strong, mobile, tank-heavy reserves are retained as a counterattack force. Obstacles are constructed both forward of and within each defensive belt to impede the advance of opposing forces and canalize them into preplanned killing zones.



A SECURITY ZONE

The purpose of the security zone is to halt or delay the attacker by forcing him to deploy before reaching the main defense belt. This zone normally extends up to 30km forward of the main defense belt. It is at least deep enough to prevent the attacker from delivering fire on the main and second defense belts with divisional weapons. Motorized rifle divisions manning the main defense belt establish general outposts **C** in the security zone as much as 15 kilometers in front of the main defense belt. This is in addition to the higher echelon security forces **D** farther forward. Normally the division's second echelon (a motorized rifle regiment) is employed in this task. In the case of a contact and delay force, probable deployment of the security outpost force would be on the order of one motorized rifle battalion per each 8-12 kilometers of frontage.

First echelon regiments in the main defense belt establish security outposts **E** in the security zone, 3-5 kilometers to the front of forward battalions. Their missions are to protect the main defense belt against surprise attack, conduct counter-reconnaissance missions, conduct counter battery operations against enemy artillery fire on the main defense belt, deceive the enemy as to the location of forward elements of the main defense belt, and prevent the enemy from clearing obstacles. A security outpost may consist of a motorized rifle company reinforced by AT weapons, artillery, tanks, and engineers.

B MAIN DEFENSE BELT

This belt is the backbone of the defense. It takes advantage of natural defensive terrain that affords the maximum protection and defense against enemy target acquisition and nuclear attack. It is designed to stop and destroy the attacking enemy forces. This belt is up to 15 kilometers deep and is manned preferably by motorized rifle units. Within this belt are those forces necessary to conduct the defense, including tank, artillery, antitank, REC, and air defense units; the division reserves; and the division main and alternate command posts.

The first echelon motorized rifle division usually is assigned to defend a zone from 20 to 30 kilometers wide and approximately 15 kilometers deep. The defense is organized in two echelons, with two motorized rifle regiments in the first echelon and one motorized rifle regiment in the second echelon. The first echelon motorized rifle regiments defend the forward 8 to 10 kilometers of the division defense belt. The second echelon motorized rifle regiment (-) organizes primary and alternate defensive positions across the division rear.

The medium tank regiment is retained under division control as the division's tank reserve. Elements of this force (two or three companies) may be used to reinforce the motorized rifle regiments. It is usually located in the rear of the first and second echelon regiments, and may be collocated with the second echelon regiments when the tactical situation dictates.

NOTES:

1. RIGHT SECTOR IS SUBSIDIARY SECTOR.
2. RAG - REGIMENTAL ARTILLERY GROUP.
3. DAG - DIVISIONAL ARTILLERY GROUP.
4. PLANNED DEPLOYMENT AREAS FOR AT RES NOT SHOWN

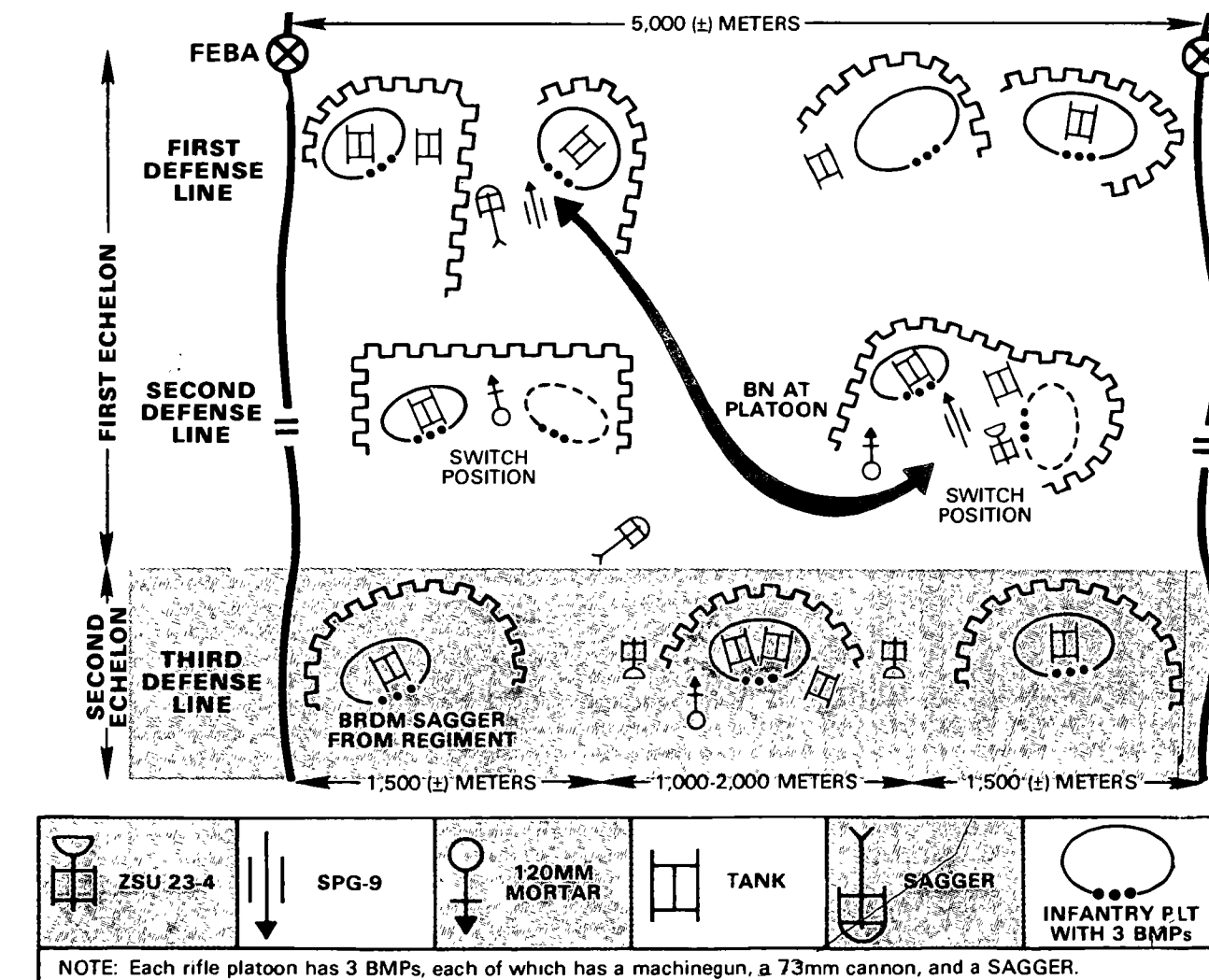
HOW THE ENEMY DEFENDS

—FM 71-2—

The motorized rifle battalion is assigned a frontage of around 5,000 meters, with a depth of approximately 4,000 meters. The defense area is organized into 2 echelons and has a total of 3 lines of defense. The forward companies are deployed in platoon strongpoints on armor restrictive terrain, forming two lines of defense. The battalion second echelon is formed by the third company, spread out across the rear of the battalion sector approximately 1,000 meters behind the second defensive line. First echelon battalions are usually reinforced with a medium tank company, 120mm mortar platoon, an antitank gun platoon, and

elements from the air defense missile battery of regiment.

A squad of antitank guns or recoilless guns from the battalion antitank battery, a platoon of tanks, and a platoon of mortars from the battalion mortar battery normally are attached to each first echelon company. The tanks are dug in within the first and second defense lines but not further than 600 meters from the forward trace of the main defense belt. They are prepared to move forward to assist a hard pressed defense. The reinforcing mortar platoon is usually attached to the second echelon company on the third defense line. A platoon of tanks is also attached to the second echelon.



CONDUCT OF THE DEFENSE

Security outposts keep the enemy under continuous surveillance and a constant volume of long-range fires. Action is taken to deceive the enemy as to the location of the main defense belt and to cause him to mass his forces. The combat outpost line holds its positions as long as possible without becoming closely engaged with the enemy.

Little general firing from the frontline positions occurs until the enemy's attack is definitely underway. When the enemy reaches a line about 400 meters from the main defense belt, artillery and mortar barrages are fired. Here the enemy is brought under direct antitank and artillery fire. At the same time, he must deal with antipersonnel and antitank obstacles including mine belts.

Tanks are primary targets and the fires of all weapons that can damage or destroy tanks are directed at them. Machinegun and rifle fire attempt to separate the infantry from the tanks.

Defending battalions remain in place until overrun or ordered to withdraw by higher headquarters; however, occupation of alternate and supplemental positions within the defense area is considered normal. The Threat expects enemy penetrations in the gaps between units and intends to accomplish maximum killing in these areas. Unengaged units adjacent to threatened defense areas may be employed to attack the flanks of attacking enemy forces. Local counterattacks, employing small mobile tank forces, are employed by the battalion, within its capability, to maintain the integrity of the defense area.

The motorized rifle regiment begins the defense *when the enemy makes contact with the security outposts*. As hostile elements move within range, security outposts take them under fire with mortars, small arms, machineguns, tanks, and antitank weapons. Artillery places fire on the advancing enemy and covers the withdrawal of the security outposts as the latter are forced back.

Small mobile tank forces are employed by the regiment to execute local counterattacks

and reduce penetrations of the first echelon position.

Penetrations of the forward positions of battalion defense areas are blocked by the second echelon.

Penetrations of the regimental sectors are counterattacked by the divisional counterattack force (usually the divisional reserve consisting of the medium tank regiment, antitank weapons and other artillery). If these counterattacks fail to stop the enemy advance, threatened units may withdraw to alternate defense areas.

FORMS OF OFFENSIVE MANEUVER

The intent of the commander and the best direction of approach to the enemy will dictate the form of maneuver used by the battalion task force. The commander's intent may vary from time to time but normally can be described in one of four ways:

1. Overrun and destroy a weaker enemy in position.
2. Fix or hold an enemy force in position by suppression.
3. Rupture and pass through enemy defenses to secure a deep objective.
4. Pass around enemy main defenses to strike him from flanks and rear—causing him to fight in an unexpected direction or perhaps in two directions.

Enemy positions can be approached in two ways—from the front or from the flank or rear. And so, there are two forms of maneuver which can be used by the battalion task force—*envelopment* and *penetration*.

It is important to understand that, in a single attack, different units at the same level may use different forms of maneuver. In a division attacking to rupture enemy defenses so as to exploit into the enemy rear, one brigade may be required to fix some enemy units in position, while another passes around those positions to destroy them from

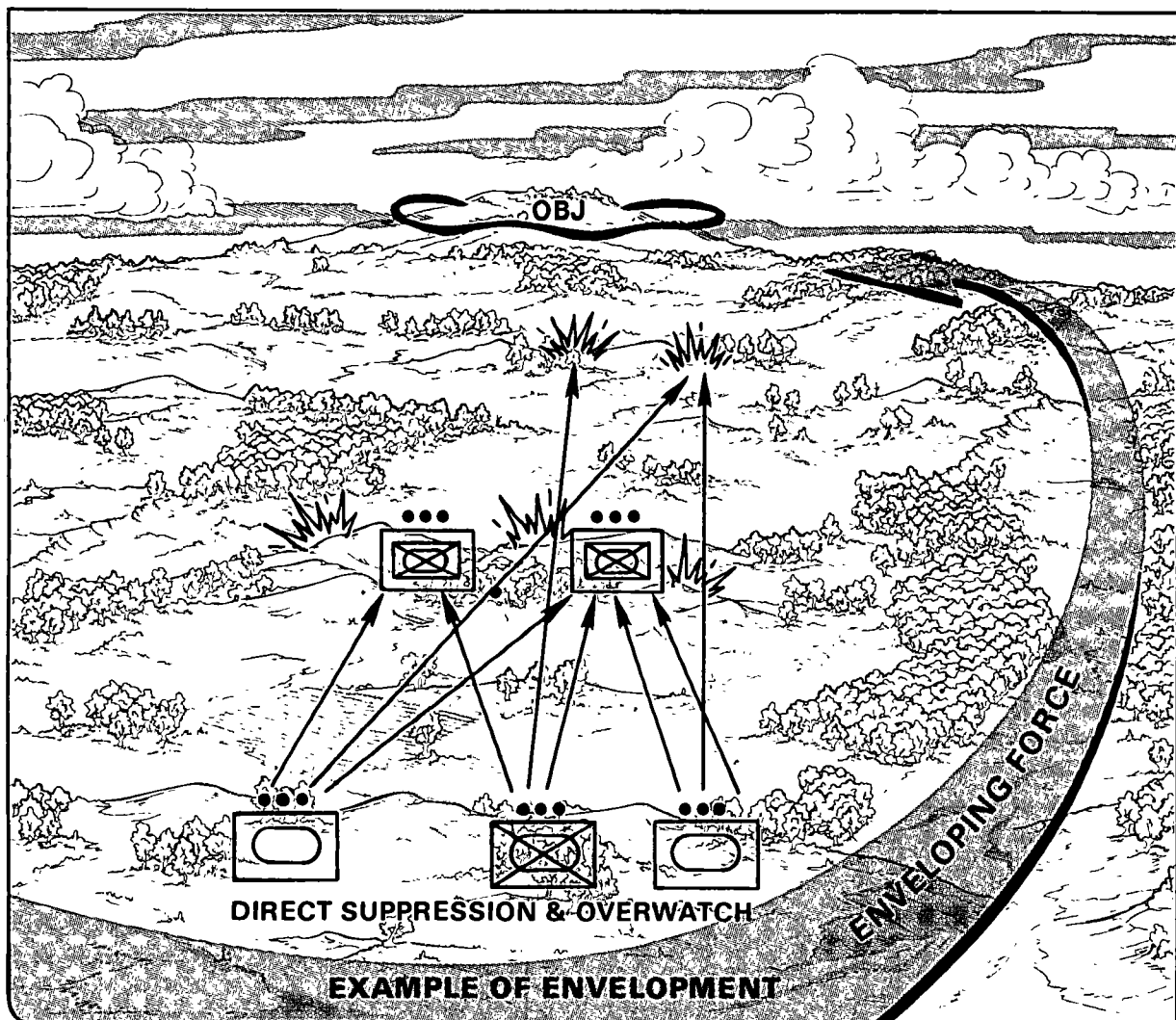
the flank, and the third is poised to move through the hole created. Within that first brigade, one battalion task force fixes enemy forces while another attacks. Within battalion task forces, company teams use *bounding overwatch* and *fire and maneuver*.

Envelopment

In this form of maneuver the attacker passes around the enemy to strike the flank or rear of the enemy position. Envelopment is the preferred form of maneuver since striking the enemy from several directions or from unexpected directions which are lightly defended or undefended multiplies combat power. Usually the enemy will be suppressed

from the front at the same time and will thus be forced to fight in multiple directions or to abandon his position. Either way, the continuity of his defense is disrupted and he is vulnerable to exploitation.

Envelopment requires an “*assailable flank*,” that is, an open flank, weakness or gap in his lines which permits the enveloping force to approach the objective. If no open flank or gap in the enemy defensive system exists, gaps should be created by fires, fire and maneuver, a deception operation, or by some other means. A battalion task force commander usually thinks in terms of attacking enemy flanks or rear rather than in the formal term “*envelopment*.”

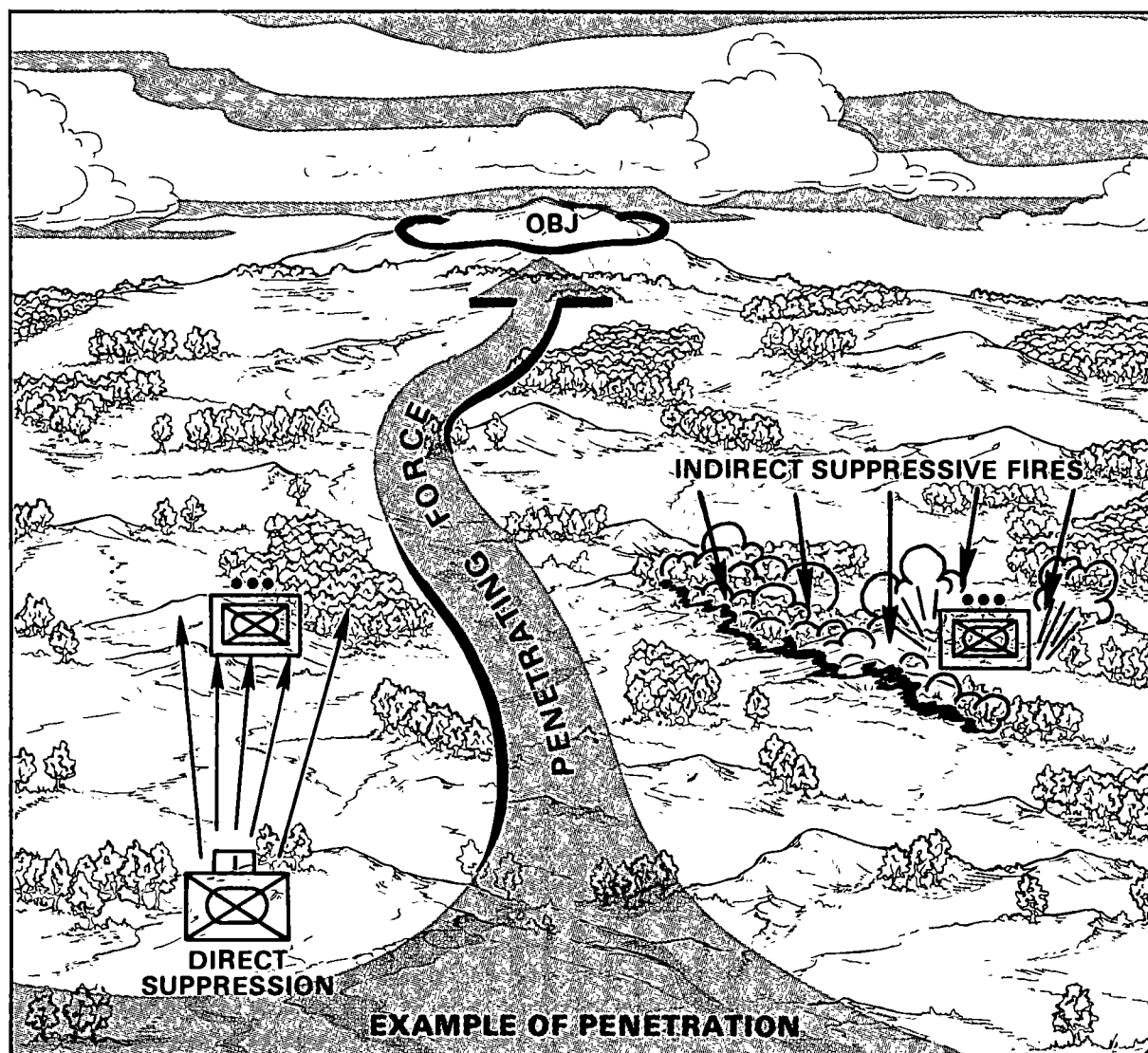


Penetration

In this form of maneuver the attacker concentrates forces to strike at an enemy weak point, breaks through the position to rupture his defense, holds the shoulders of the gap created, and advances rapidly to the objective. Successful penetration depends upon the ability of the attacker to suppress enemy weapons, to concentrate forces to overwhelm the defender at the point of attack, and to pass sufficient force through the gap to quickly secure the objective. Once this is accomplished, the commander has two options. He may continue forward to rupture

successive defense lines and ultimately enter enemy rear areas, or he may turn forces to roll up enemy positions from the flanks.

When the battalion task force conducts a penetration of the enemy's main defense zone, its objective is usually located in the area of the front line enemy battalion's second echelon company (1500 - 3000 meters to the rear of the enemy's first line companies). The penetrating task force or follow-on task forces would then continue the penetration to the brigade objective (usually in the area of the enemy regiment's reserve, another 5000 to 8000 meters deep).



TYPES OF OFFENSIVE OPERATIONS

The battalion task force can expect to take part in these types of offensive operations:

1. MOVEMENT TO CONTACT
2. HASTY ATTACK
3. DELIBERATE ATTACK
4. EXPLOITATION AND PURSUIT
5. RECONNAISSANCE IN FORCE
6. RAID

1 ***Movement to Contact.*** The purpose of *movement to contact* is to gain or regain contact with the enemy. Any time the task force is going toward the enemy but is not in contact, the unit is performing this type of offensive operation. Contact is sought by the smallest possible part of the task force, thus permitting the task force commander to immediately respond to the contact with the bulk of his unit.

Two general situations can exist. If the brigade (or division) is out of contact and the distance between friendly and enemy areas of operation is many miles, then a formal movement to contact may be conducted. A battalion task force will then move with the main body or act as advance, flank, or rear guard. The more common situation is one in which a battalion task force is attacking, exploiting, pursuing or conducting a reconnaissance in force, and for any reason is briefly out of contact with any enemy force.

Since movement to contact occurs as the first step of an attack, or as internal steps of other offensive operations, the commander deploys his unit to perform the overall mission. But in any case, he deploys his unit so as to make initial contact with the minimum force possible, to maintain mutual support between company teams, and to lessen the vulnerabilities of the task force. He also uses reconnaissance to gain information and security for his unit.

As in any other tactical operation, the commander allocates forces and tasks according to his mission, the terrain and weather, and troops and equipment available. Since the task force is not in contact, an additional factor is the likelihood of enemy contact.

MOVEMENTS ARE USUALLY MADE WITH TWO OR MORE COMPANY TEAMS LEADING IN PARALLEL COLUMNS

The battalion task force usually moves to contact with at least two company teams leading on generally parallel axes. This is done for two reasons: First, moving the force on a single column axis risks accidental bypass of substantial enemy forces; second, a battalion task force on a single axis might stretch the column length to six kilometers or more, limiting the commander's ability to react swiftly to contact.

When a battalion task force moves to contact, each leading team uses traveling overwatch or bounding overwatch. Each normally leads with a tank platoon (because of greater survivability) unless terrain dictates otherwise. TOWs can overwatch the tanks. **Movement techniques for the company team are detailed in FM 71-1.**

If only one leading team makes contact, the task force commander decides whether to bypass, to attack to fight through, to develop the situation, or to fix the enemy in position while he maneuvers his other teams. He has at least one company team already on the flank, or ready to move to the flank, of the enemy. Should both leading platoons make contact, the commander can still maneuver the remainder of his force. *Initial contact by minimum forces and swift maneuver by the rest are vital aspects of movement to contact.* This is true whether the movement takes place at the beginning of an attack or during exploitation or pursuit.

MEETING ENGAGEMENT AND ACTIONS ON CONTACT

A meeting engagement occurs when the task force comes upon the enemy suddenly.

Little or no information is known about the enemy at this time. The enemy may be moving or stationary.

The unit which meets the enemy takes actions on contact. Reacting immediately, the platoon making first contact returns fire, deploys, reports, and develops the situation. Suppressive fire from the overwatch positions, mortars, and artillery permit maneuver against the enemy. The company team seeks to maintain forward motion of the task force and provides an immediate and accurate report of what is happening.

**CONTINUING THE FORWARD
MOTION OF THE TASK FORCE
IS IMPORTANT**

The goal, once contact is made, is to gain the upper hand by overcoming the enemy *before he can effectively react*. To do so, the task force commander must keep his force in a posture to maneuver quickly to the contact, receive information instantly through good reports or personal observation, and issue instructions immediately.

The meeting engagement ceases when the situation has been developed and other actions are begun. Based on the company team commander's report, and his own observations, the battalion commander has at least four options:

1. Order the company team to eliminate the enemy and continue forward with the task force.
2. Order the company team to fix the force and bypass with the rest of the battalion task force.
3. Conduct a task force hasty attack.
4. Adopt a hasty defense if the enemy cannot be overcome or bypassed, while the brigade commander responds to the situation.

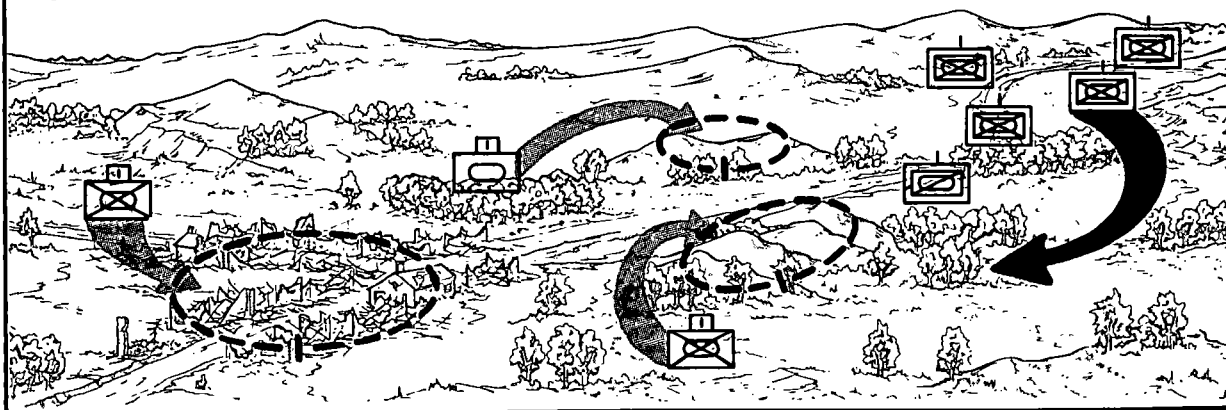
If the enemy is also moving (frequently the case in the exploitation, counterattack, and even defense), speed of decision and execution is even more critical. Threat doctrine for the case of two converging forces

is to immediately conduct a hasty attack from the line of march and attempt envelopment. The task force commander must quickly

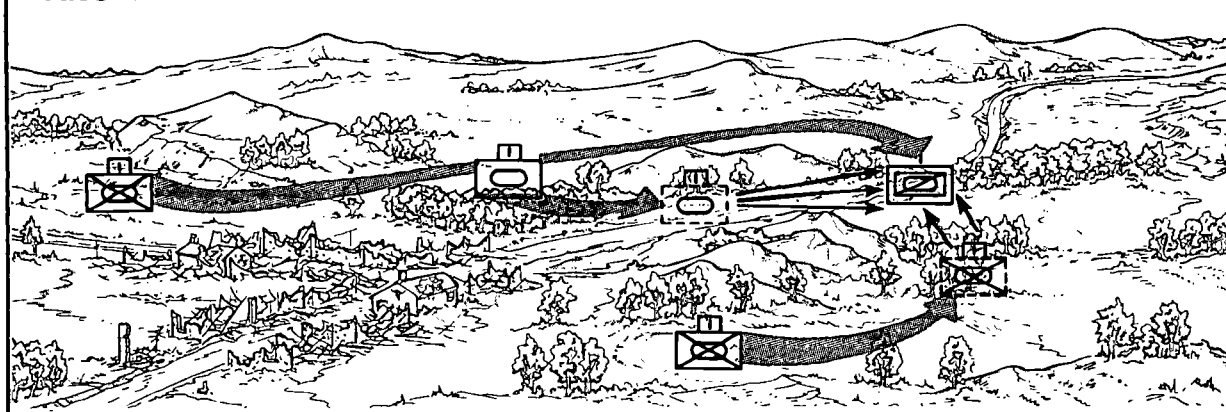
estimate the force ratios and either go to a hasty defense or begin a hasty attack to outflank and destroy the enemy.

MEETING ENGAGEMENT AGAINST A MOVING ENEMY

ONE WAY - HASTY DEFENSE



ANOTHER WAY - HASTY ATTACK



2 Hasty Attack. A hasty attack situation develops in several ways:

- ☐ *Movement to contact results in a meeting engagement.*
- ☐ *Deliberate attack plan is modified after operation is underway.*
- ☐ *Further advance is ordered at end of a deliberate attack.*
- ☐ *Small unit counterattacks.*

When contact is made, the company team immediately begins fire and maneuver. This fire and maneuver is an extension of

bounding overwatch: The overwatching element gives direct suppressive fire while the bounding element closes with the enemy. If the hasty attack is successful, the task force can continue; if not, the commander must quickly choose another option.

The hasty attack requires the commander and his units to react quickly. *The actions must happen without hesitation, decisions made as naturally as breathing.* The commander reacts almost instinctively to maintain momentum, to retain the initiative. He maintains contact while protecting his

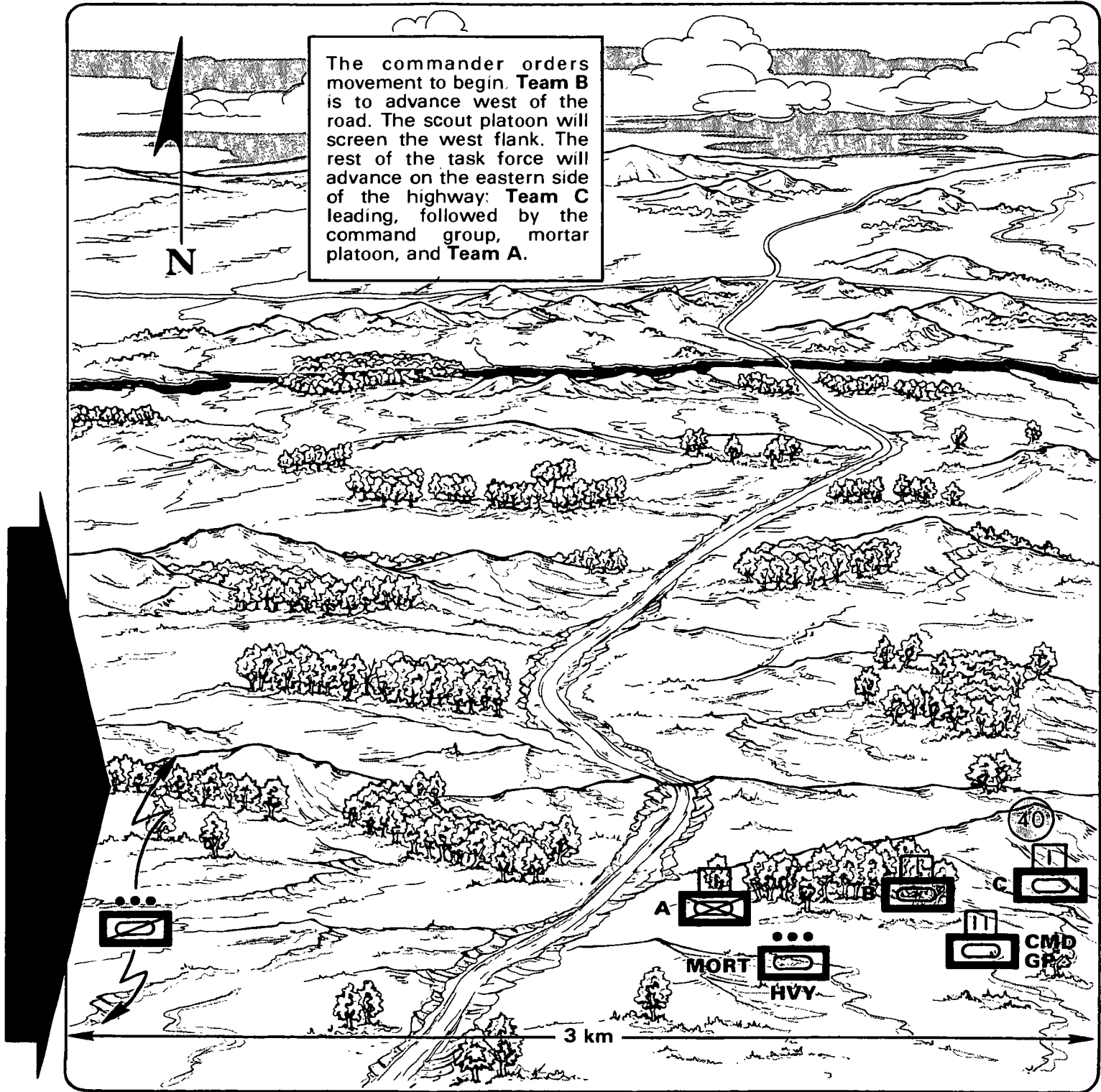
own forces as he seeks the enemy's weakness. He directs suppressive fires to keep the enemy pinned down and to take away the mutual support of enemy positions. He concentrates forces and commits them by fire and maneuver to destroy the enemy at a selected spot.

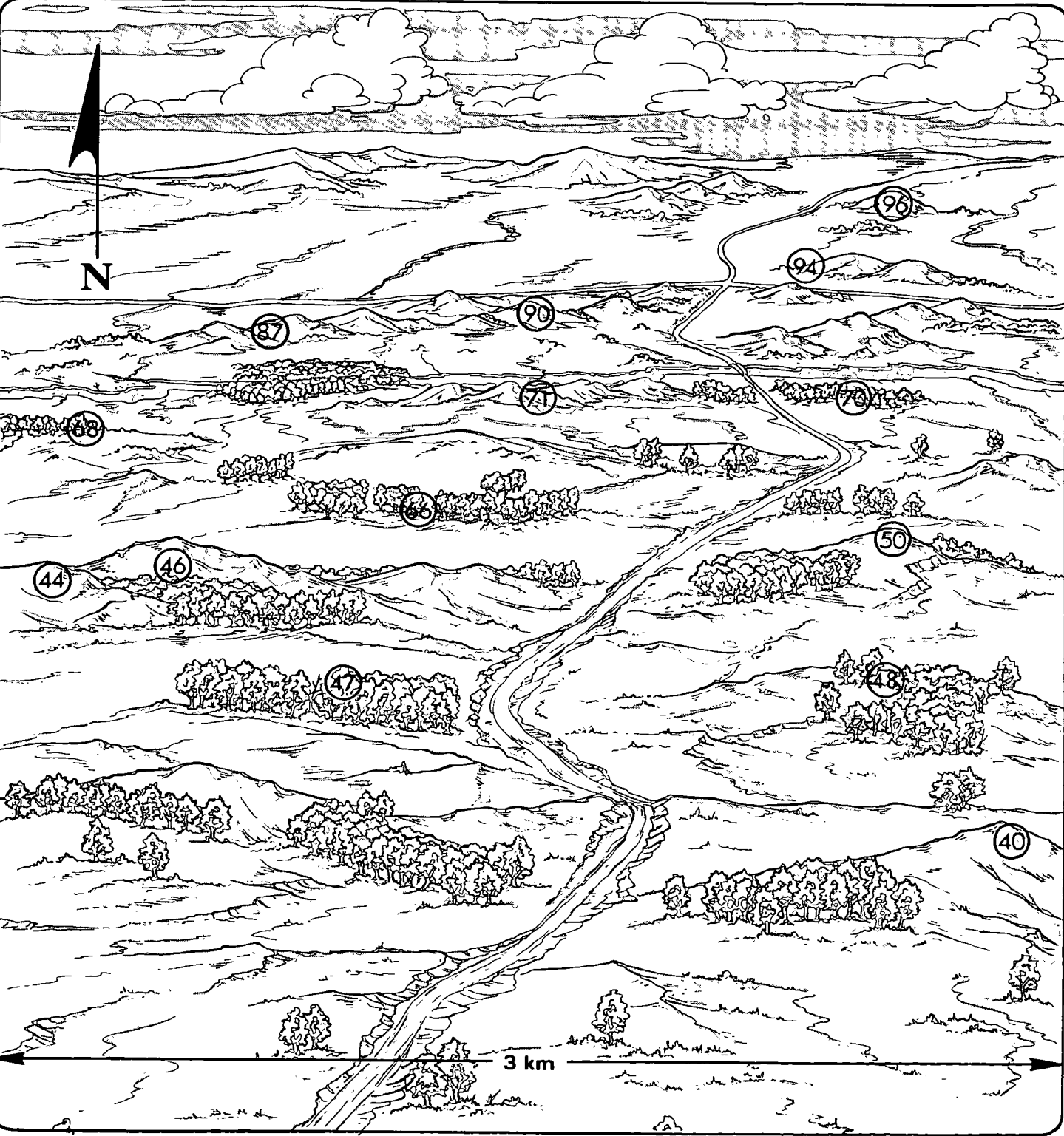
Suppression is crucial. Fires must be controlled to suppress or destroy weapons of different types in several locations. As the attack starts, the commander and his fire support officer put artillery, mortar, tank, and TOW fire on enemy direct fire weapons (or on possible locations). Dragon fire is added as soon as the range permits; tanks and TOW then engage more distant enemy systems. Counterbattery fire is started as soon as possible to protect the maneuver elements. Smoke is used to screen movement.

EXAMPLE OF HASTY ATTACK

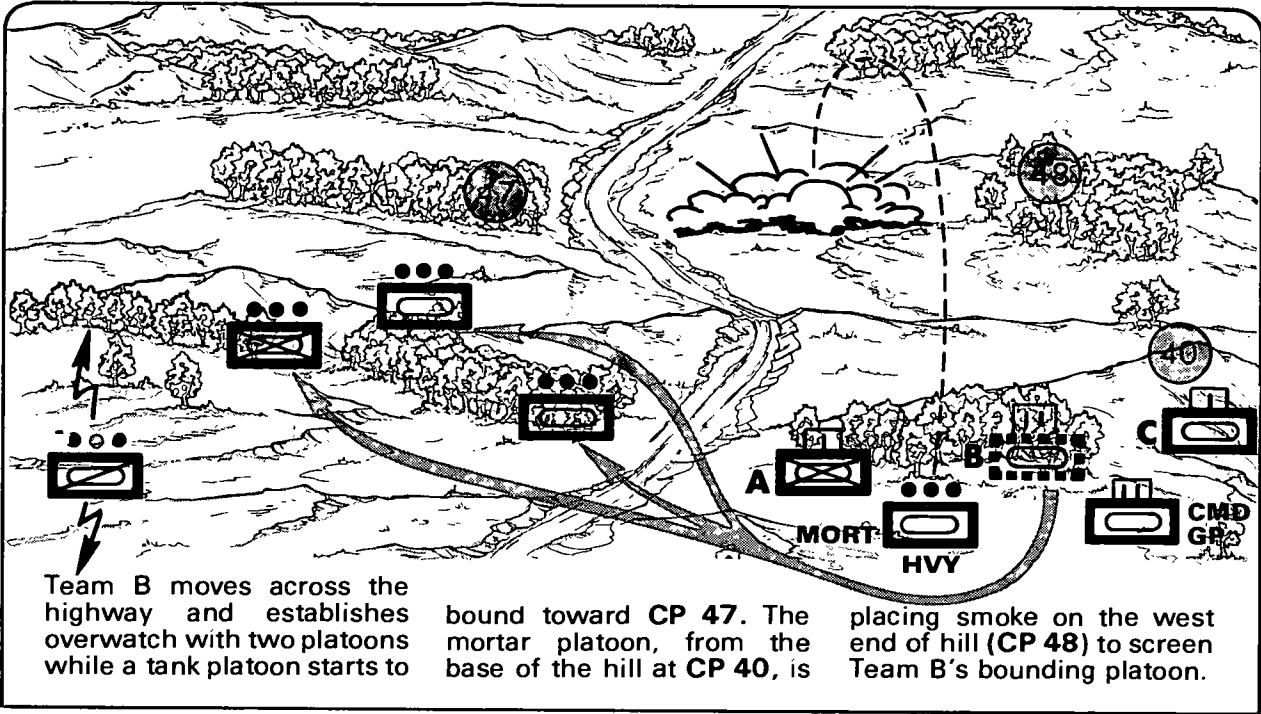
A tank-heavy task force, organized into three tank-heavy teams, has destroyed an enemy unit on the hill at Checkpoint (CP) 40 and is ready to continue the attack to the north. Only scattered resistance is anticipated. The unit is out of contact now, but expect to regain it soon.

The current task organization is:			
TASK FORCE CONTROL	TEAM A	TEAM B	TEAM C
Scout Plt	A/2-76 Mech (-)	B/2-4 Armor (-)	C/2-4 Armor (-)
2 GSR	1/B2-4 Armor	1/A/2-76 Mech	2/A/2-76 Mech
Hvy Mort Plt	2/C/2-4 Armor	1 AVLB	1 REDEYE TM(DS)
REDEYE Sec	*4 TOW Sec	1 REDEYE TM(DS)	
GSR Sec (-)	1 REDEYE TM(DS)		
	1 AVLB		
<i>*NOTE: When the brigade commander task organized, he considered each task force's need for TOW. He decided to give 2-4 Armor 4 TOW sections. Since the TF commander's concept was to have TM A follow and support, he left all TOW with them. This was done to reduce TOW vulnerability while retaining their long-range support.</i>			

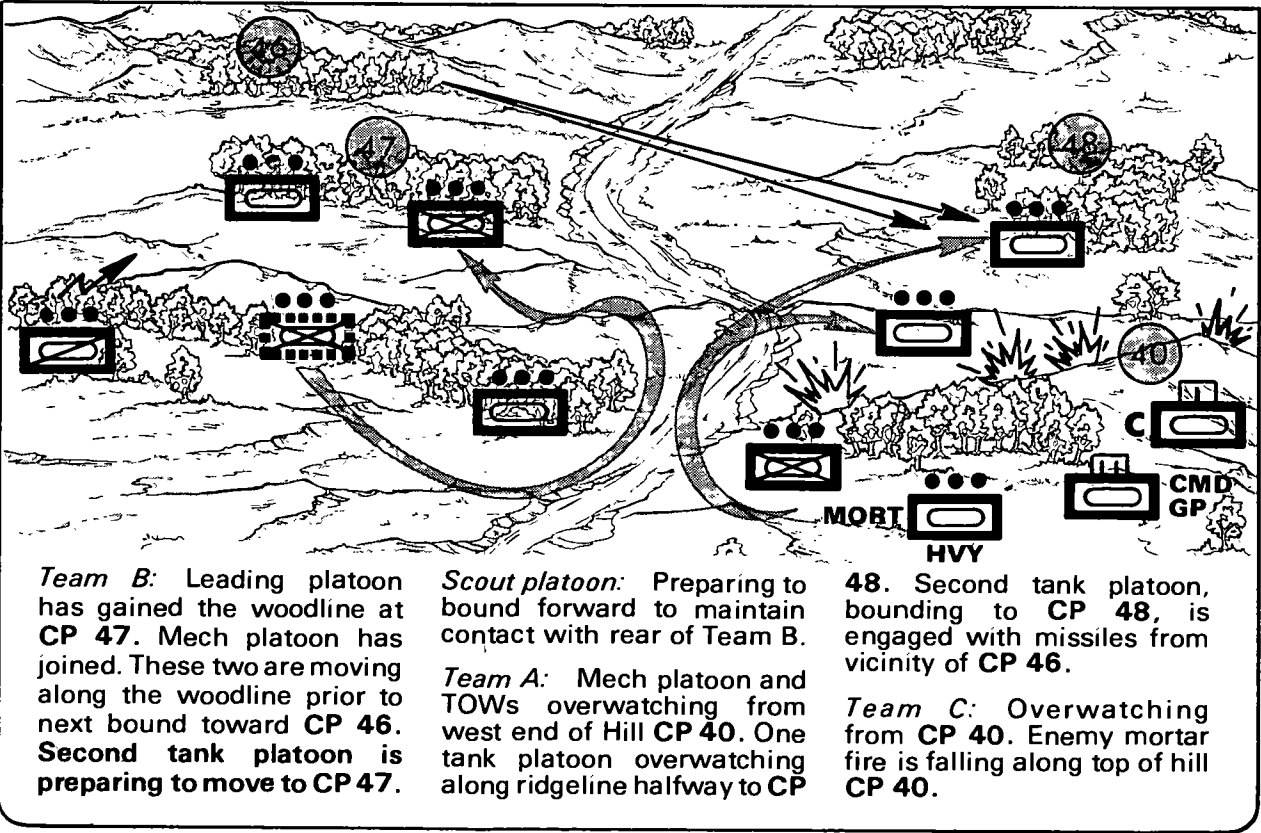




NOTE: THIS PAGE MAY BE LEFT FOLDED OUT AS AN AID IN REMAINING ORIENTED WHILE FOLLOWING THE ACTION DESCRIBED AND DEPICTED IN THE FOLLOWING PAGES.



Team B moves across the highway and establishes overwatch with two platoons while a tank platoon starts to bound toward CP 47. The mortar platoon, from the base of the hill at CP 40, is placing smoke on the west end of hill (CP 48) to screen Team B's bounding platoon.

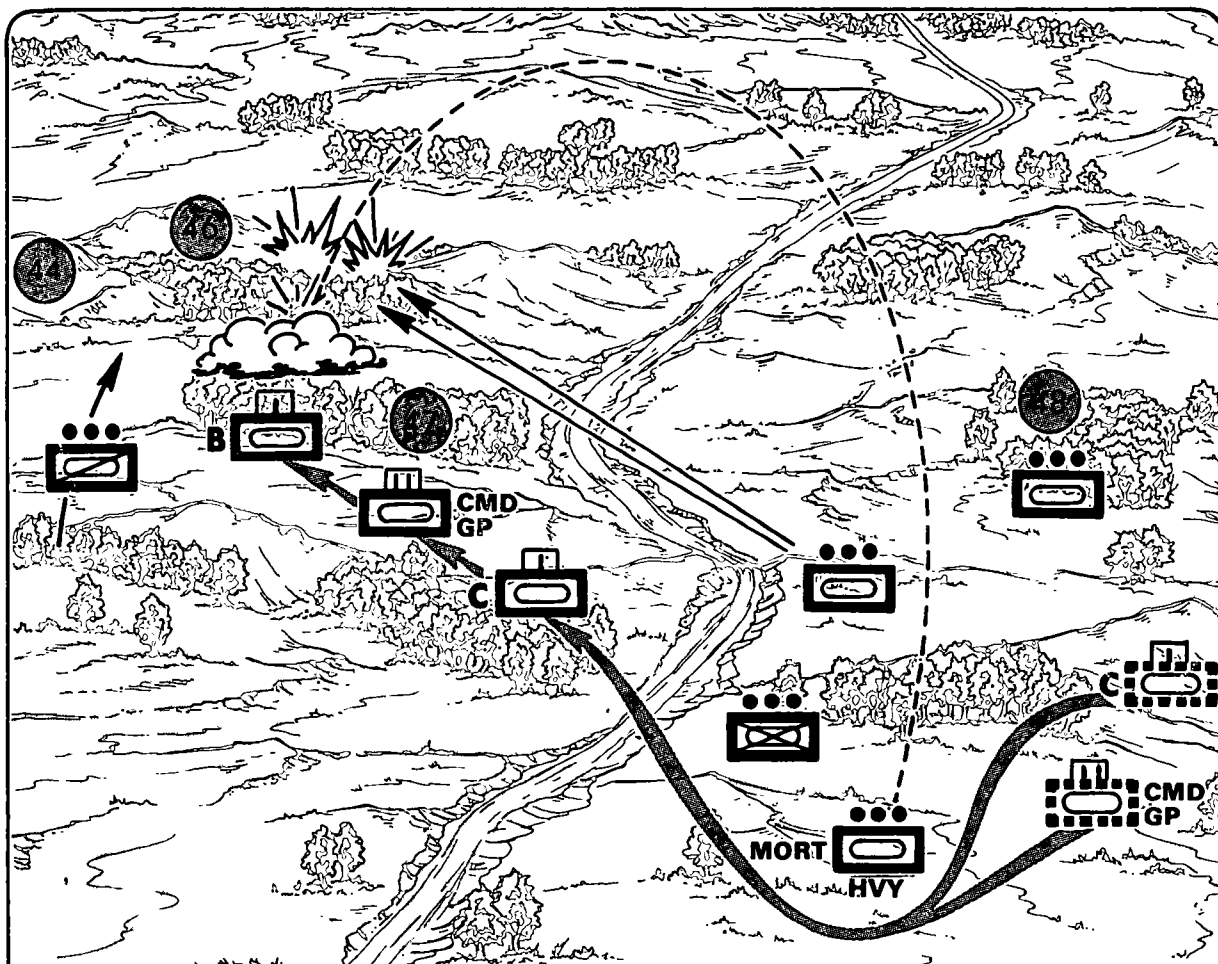


Team B: Leading platoon has gained the woodline at CP 47. Mech platoon has joined. These two are moving along the woodline prior to next bound toward CP 46. Second tank platoon is preparing to move to CP 47.

Scout platoon: Preparing to bound forward to maintain contact with rear of Team B.

Team A: Mech platoon and TOWs overwatching from west end of Hill CP 40. One tank platoon overwatching along ridgeline halfway to CP 48. Second tank platoon, bounding to CP 48, is engaged with missiles from vicinity of CP 46.

Team C: Overwatching from CP 40. Enemy mortar fire is falling along top of hill CP 40.



Team A commander directs return fire from his overwatching tank platoon, moves the bounding platoon toward CP 48 and cover, calls for artillery fire east of CP 46, and reports to the battalion task force commander. His report includes:

- enemy fire is missile only, at a range of about 2000 meters.
- Hill CP 48 is unoccupied
- actions he is taking

Team B commander reports CP 47 unoccupied and that he cannot see the enemy at

CP 46. Scouts report left flank secure. The task force commander realizes he can bypass to the east, but that enemy forces control the road along which trains and other support must follow. He decides to attack by envelopment to the left. He issues the following FRAGO via secure voice radio:

Enemy ATGM located vicinity CP 46.

Teams B and C attack to clear enemy positions vicinity CP 46, Team B on the left, Team C on the right. Mortars fire smoke between CP's 46 and 47. FSO continue fire on enemy, Team A FO adjust.

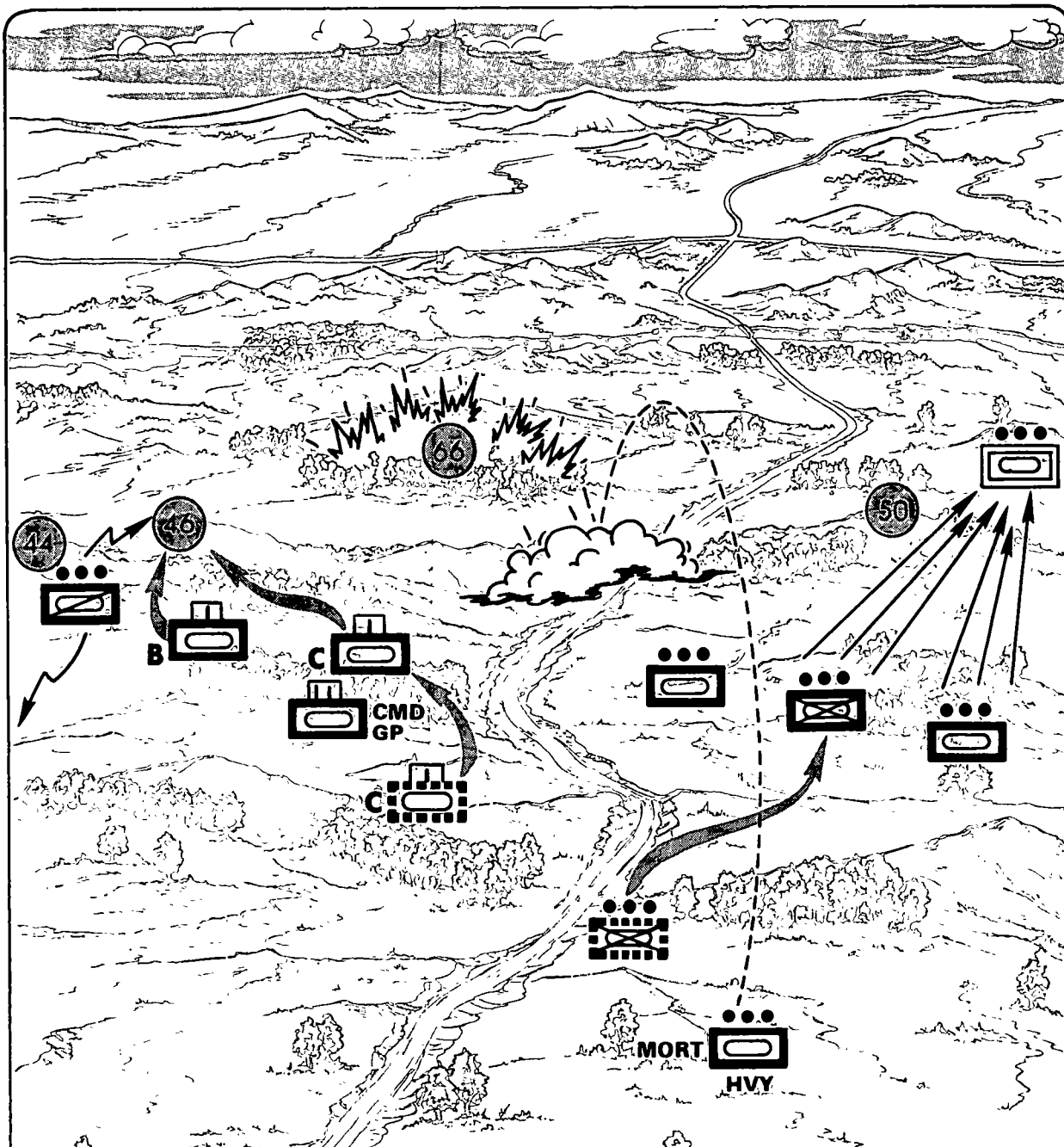
Team B, begin your move on an axis west of CP 47 through CP 44 to attack toward CP 46.

Team C, follow command group to CP 47, move up on right of Team B to attack CP 46.

Team A guard right flank, continue to suppress CP 46 from present position.

Scouts continue to screen left flank.

I will follow Team B as far as CP 47, then follow Teams B and C in the attack. MOVE OUT!

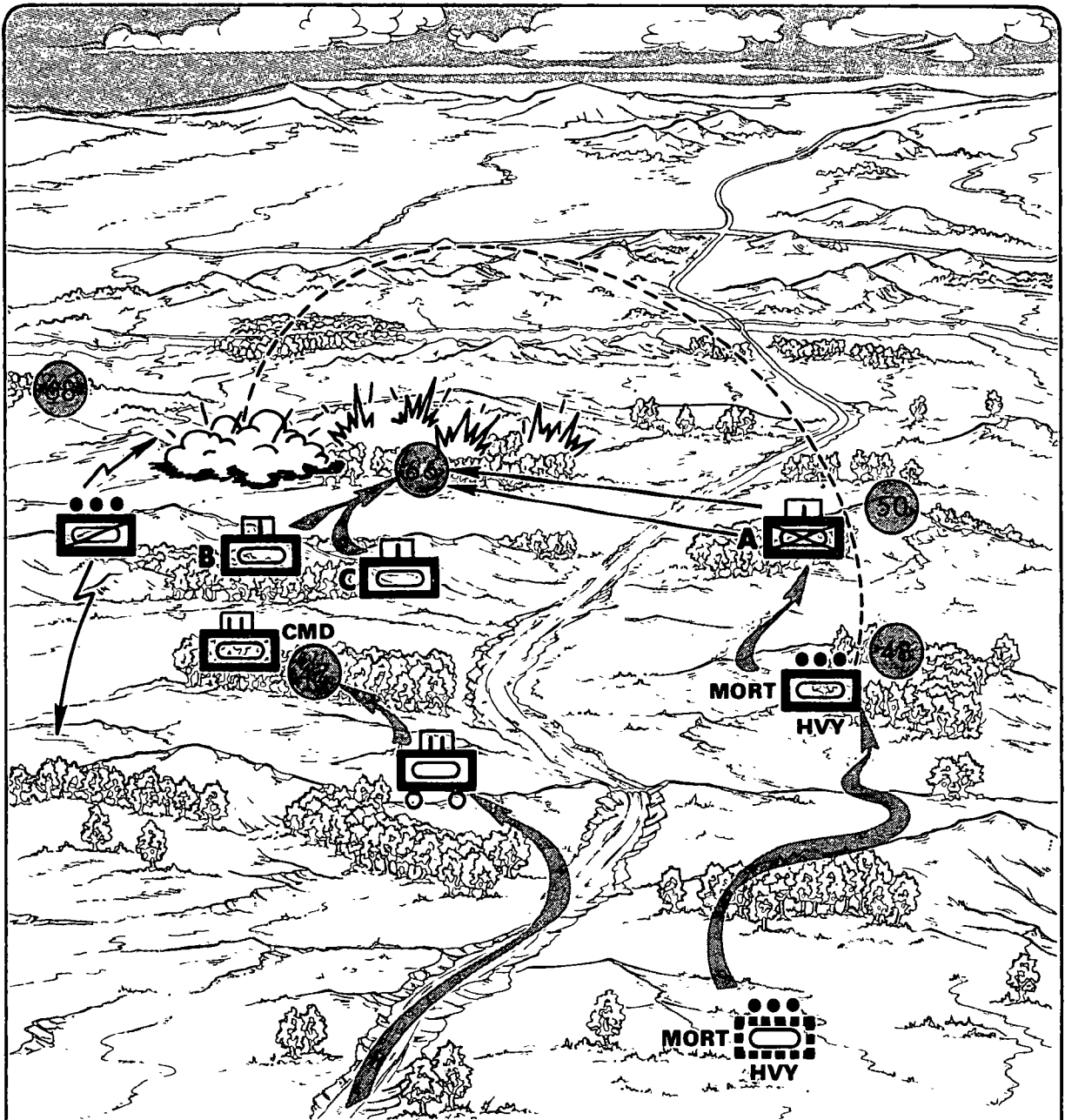


As Teams B and C move toward CP 46, the leading scout reports from CP 44 that enemy heavy mortars are firing from vicinity of CP 66. The fire support officer shifts artillery fire from CP 46 to CP 66 to suppress these weapons. He shifts

mortar smoke from the valley south of CP 46 to the saddle between CP 46 and CP 50 to screen the movement of teams B and C from observers beyond the saddle. Teams B and C, controlled by the battalion task force commander, assault and

overrun the enemy position at CP 46 from the flank.

Team A commander reports an enemy tank platoon moving rapidly from the northeast toward CP 50. He engages and destroys it.

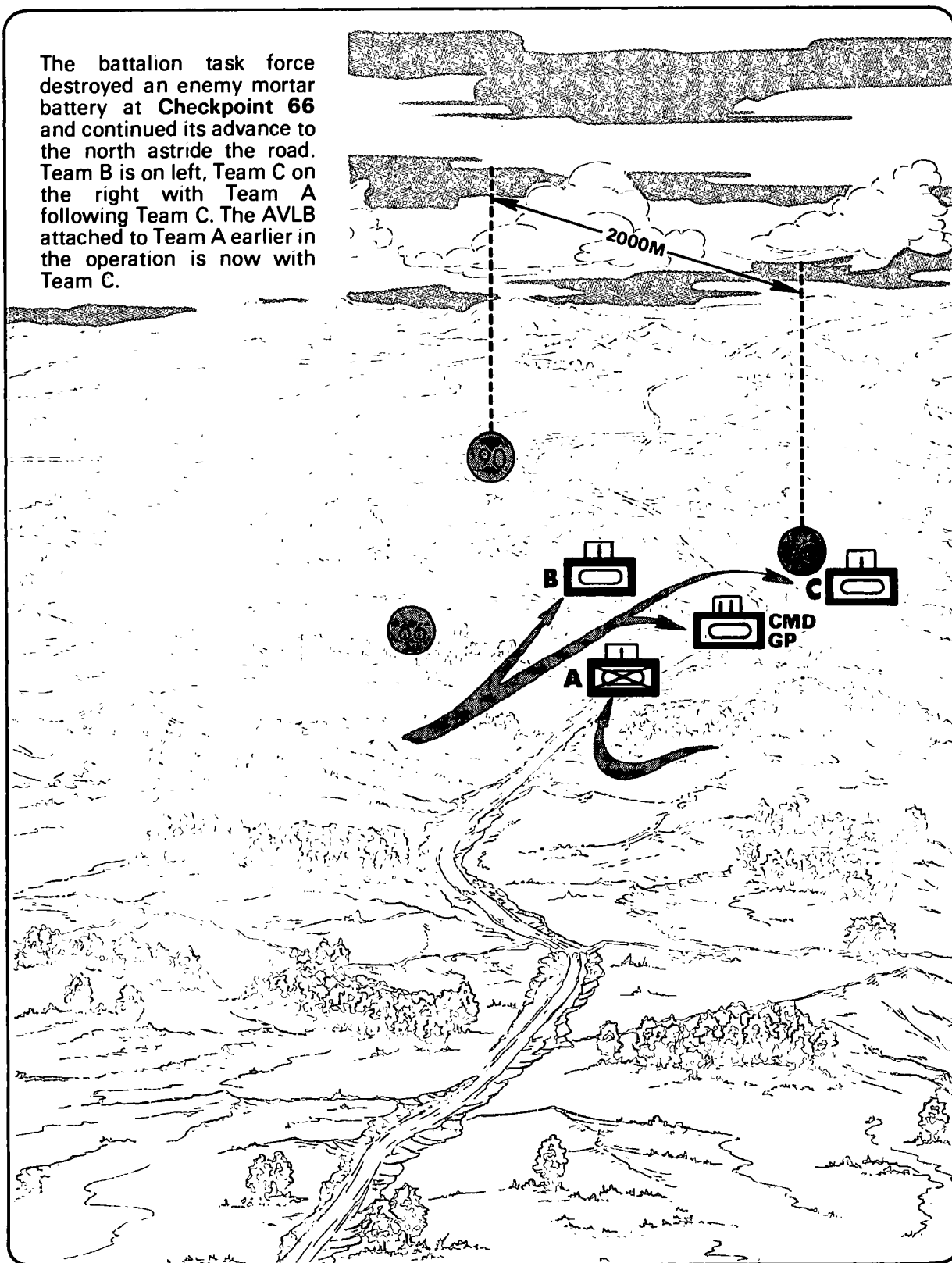


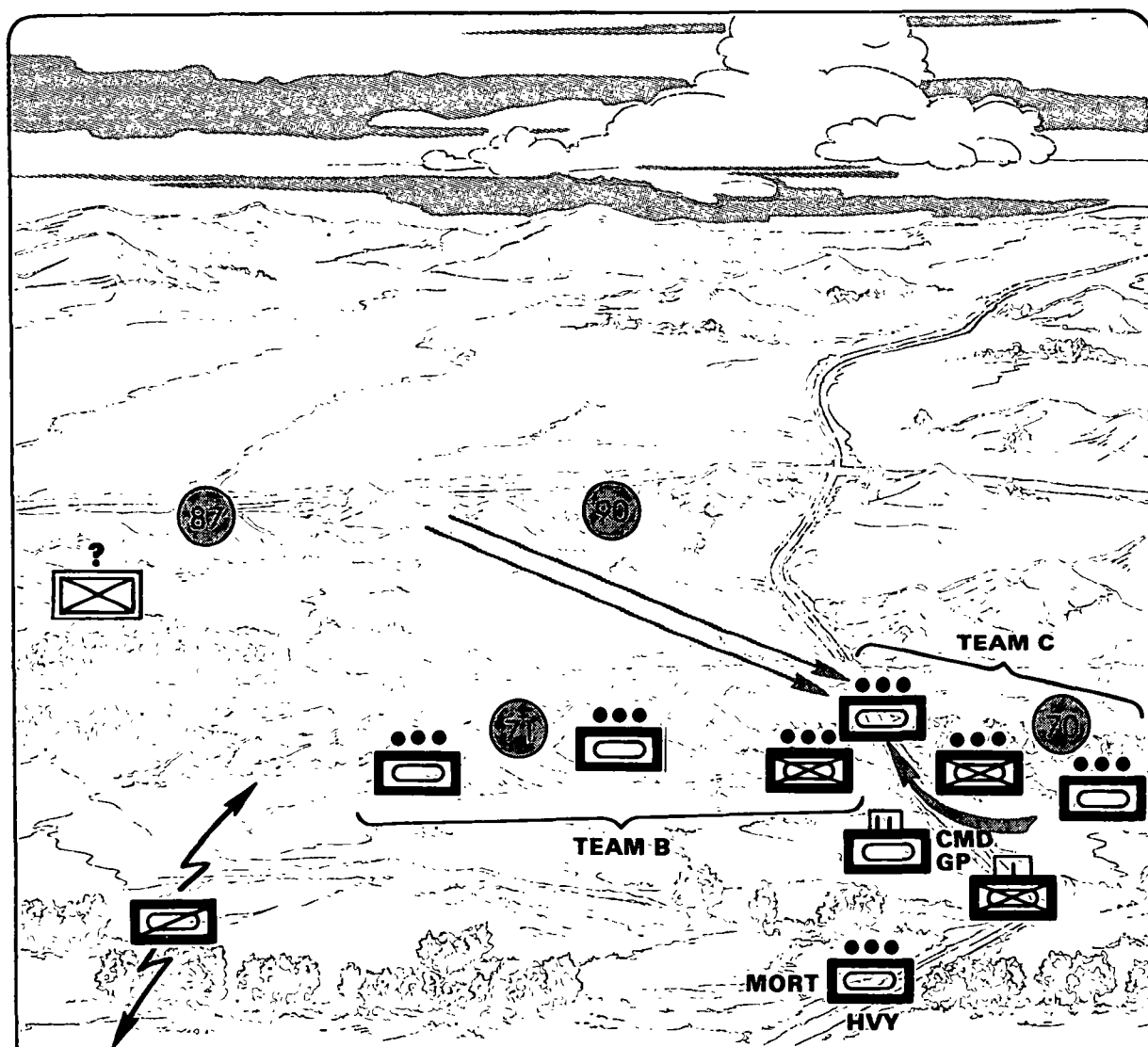
The battalion task force rapidly prepares to continue the attack. Supporting field artillery fire continues in the area of CP 66. Team A advances to CP 50. Teams B and C overwatch the move. Mortars of the weapons platoon of Team A place smoke in the saddle between

CP 66 and CP 68 while the heavy mortar platoon displaces to CP 48. Portions of battalion task force trains not already there are moving to CP 47. Disabled vehicles are dragged to the highway to be picked up by the battalion maintenance platoon.

In order to destroy the enemy fire support unit before it can escape, the battalion task force commander shifts artillery fire north of CP 66, orders Team A to suppress from CP 50, and with Teams B and C, he attacks toward CP 66.

The battalion task force destroyed an enemy mortar battery at **Checkpoint 66** and continued its advance to the north astride the road. Team B is on left, Team C on the right with Team A following Team C. The AVLB attached to Team A earlier in the operation is now with Team C.





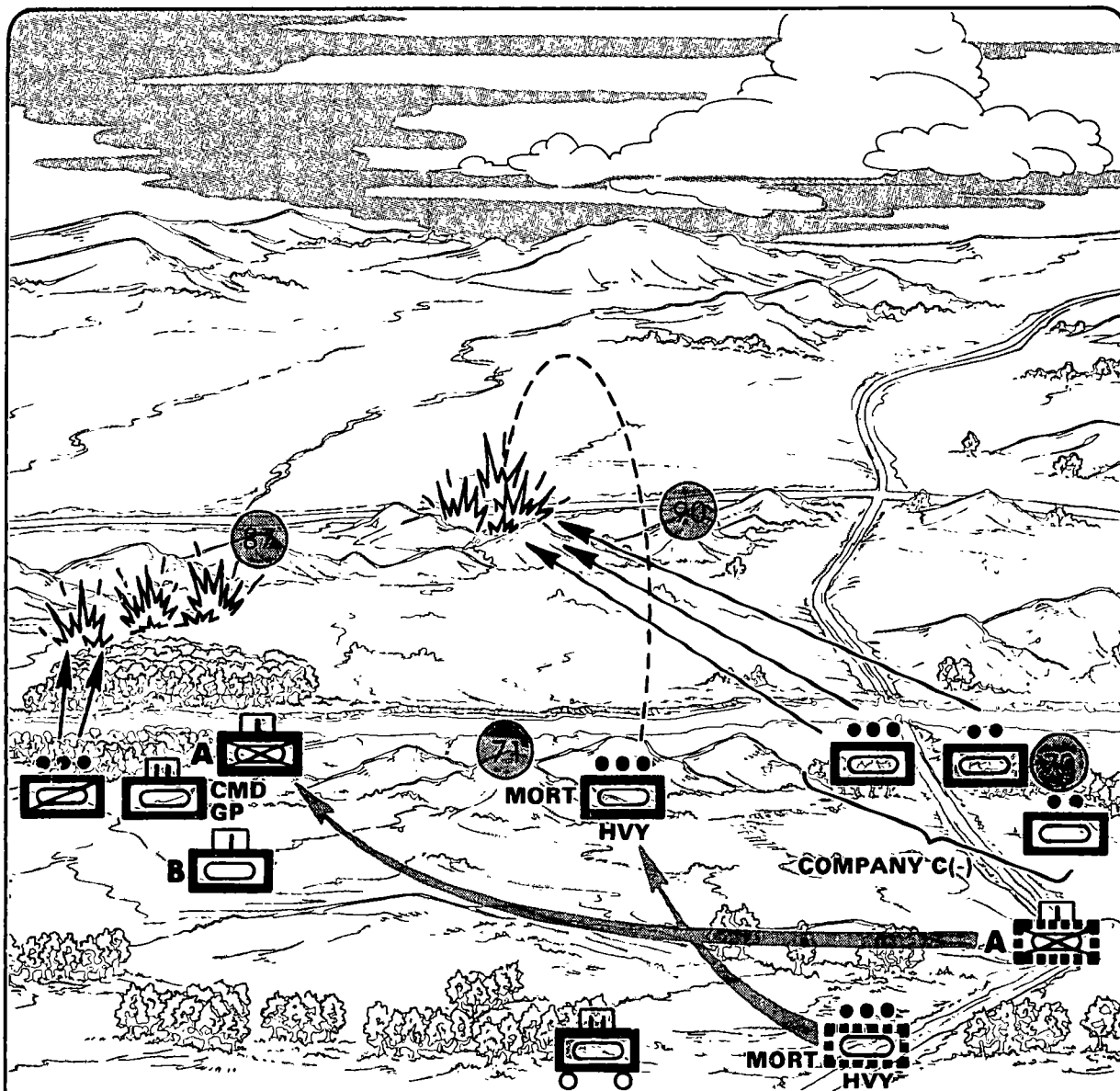
Team B is overwatching the movement of Team C from hill CP 71 due to the long fields of fire around the bridge. Team C is bounding toward the bridge and receives fire from across the river. Team C commander returns fire, calls for mortar and artillery fire, seeks cover, assesses the situation, and reports:

- enemy fire is BMP main gun and recoilless rifle.

- no other enemy activity detected.
- the bridge is out.
- the river is unfordable, but swimmable, has good banks, and can be spanned by AVLB.
- action he is taking.

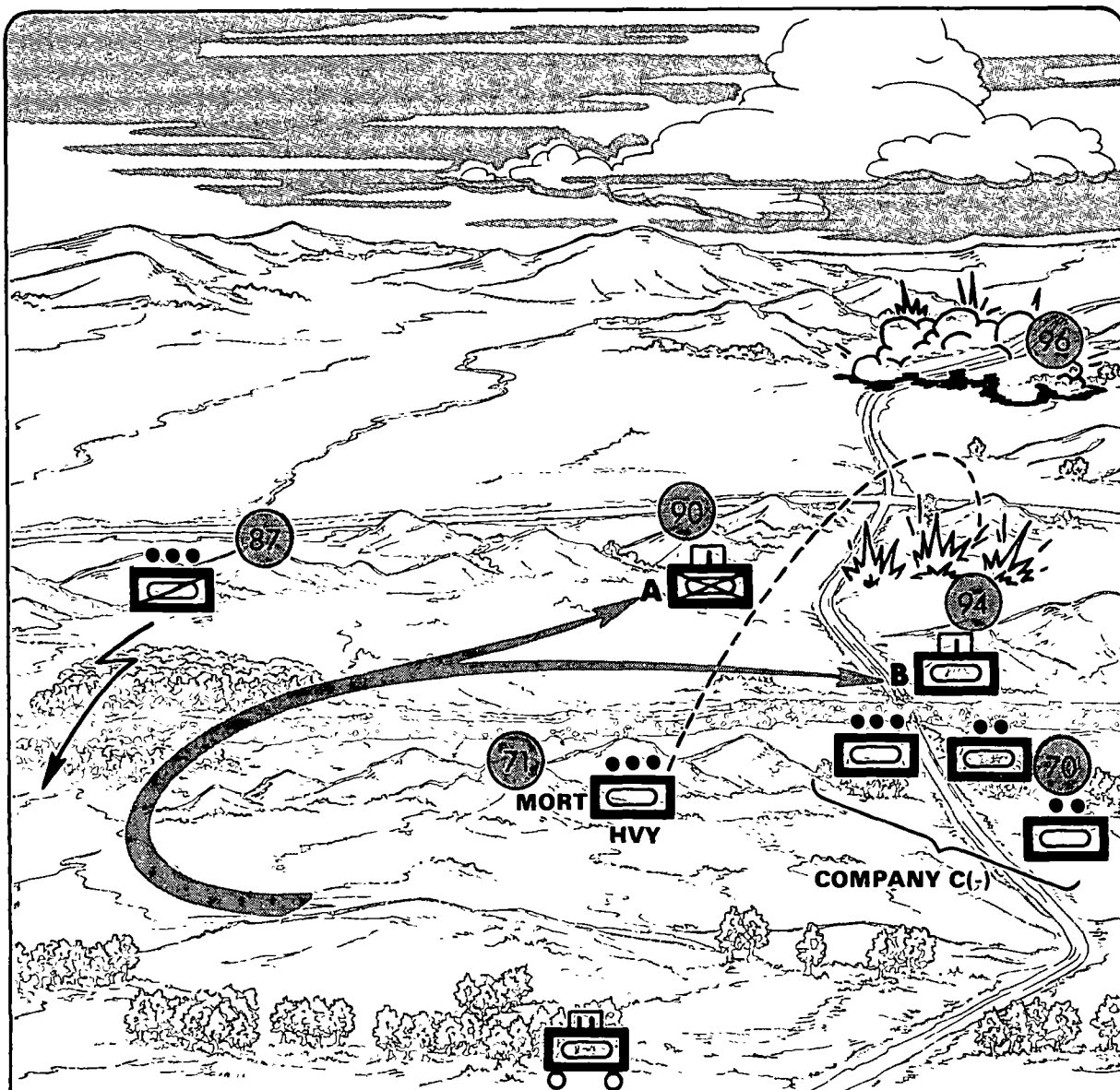
Scouts report an infantry element of unknown size at checkpoint 87 at the base of the hill. The battalion task

force commander decides he cannot bypass. Envelopment right is difficult due to openness of terrain around the river and the distance an assault force would travel to CP 90. Envelopment left is possible, but complicated by enemy forces west of CP 87. The unfordable river requires an assault force of pure mechanized infantry initially. The commander decides to attack on the axis CP 71 to CP 87 to CP 90.



The commander

- Requests artillery fire on the enemy infantry at the base of CP 87.
- Orders Team C to detach its mechanized infantry platoon to team A and AVLB to team B, protect the right flank, suppress enemy direct fire weapons to support the infantry river crossing.
- Orders team A to detach its tank platoons to team B, receive attachment of all infantry platoons, attack toward CP 87.
- Orders team B to detach its mech platoon to team A, receive attachment of A's tank platoon and C's AVLB, follow team A (now company A) across the river to enemy positions. Suppress for Company A during the crossing.
- Orders scout platoon to advance a section toward the enemy infantry and suppress them with direct fire.

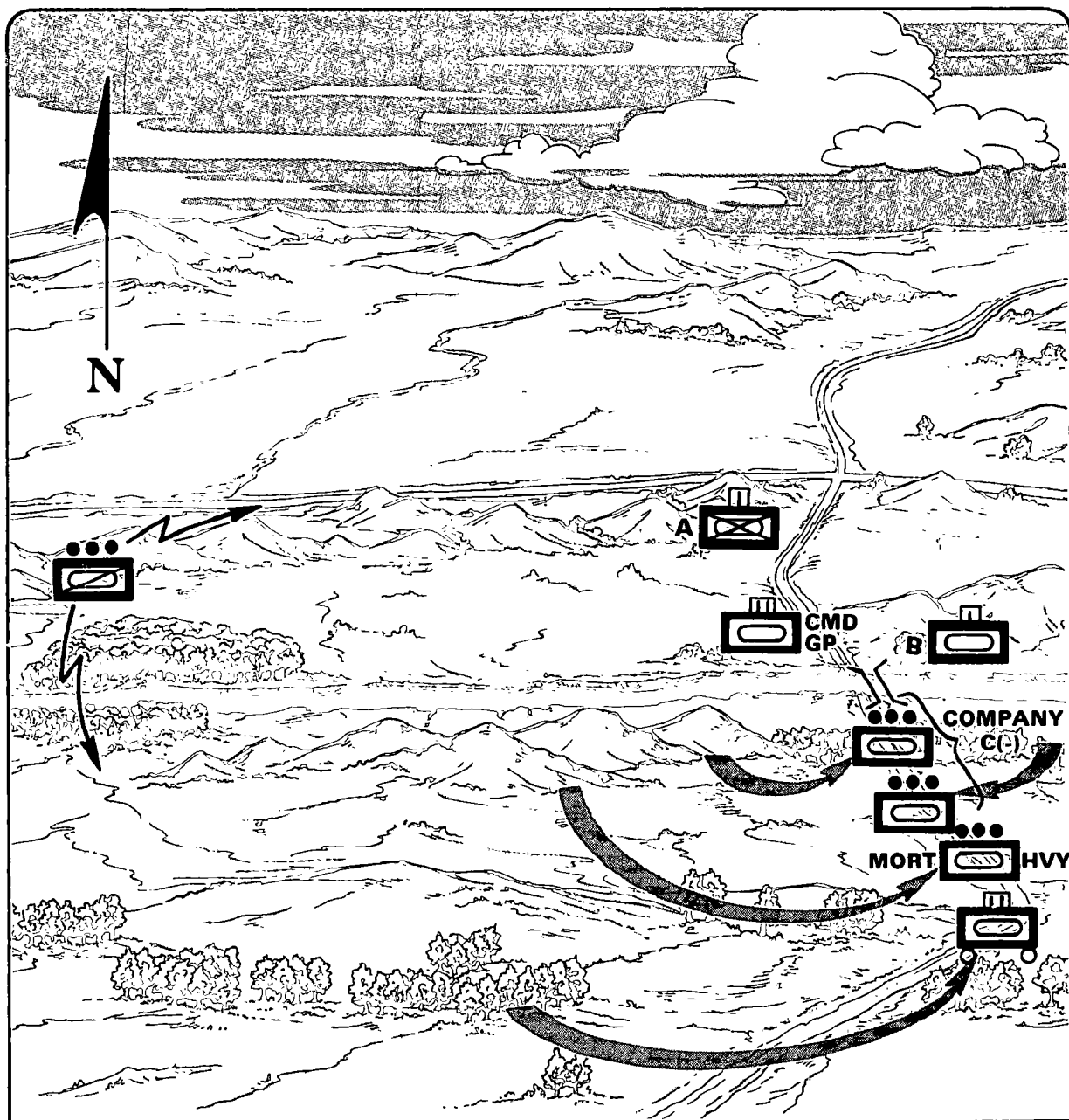


Covered by the suppressive fires of Teams B and C, Company A crosses the river by swimming, directly south of CP 87. Scouts suppress enemy troops to the west as AVLB are emplaced in the same area. With two bridges in, the four tank platoons of Company B (reinforced) cross rapidly to join in the assault of enemy positions on the

ridge. Scouts swim the river and destroy the enemy outpost. The battalion task force commander shifts artillery smoke to CP 96 and shifts mortar fire to CP 94. Enemy forces, consisting of two reinforced platoons, are quickly overrun from the flank and rear.

The task force commander

quickly revises the task organizations of A and B. Leaving two tank platoons to overwatch near CP 90, he orders Team B to continue rapidly to the east to secure the key terrain at CP 94. Company C (-) also overwatches this move. Mortars continue to smoke to cover movement.



Having destroyed enemy forces in the immediate area, the task force undertakes several actions. It consolidates its positions on the north side of the river so as to be ready in case of enemy counterattack. Radars are emplaced to scan the area. Redeyes with forward teams are dismounted and deployed to cover air avenues of approach. One AVL B is moved east to span the river near the blown highway bridge. The remainder of the task force (Company C (-), mortars and trains),

and other brigade elements following, can cross. Medical aidmen with company teams treat or evacuate casualties as necessary. Damaged vehicles are repaired or towed to the highway to be taken over by the battalion maintenance platoon. While these activities go on, the commander also directs that platoons be refueled and resupplied with ammunition, and briefs his company team commanders on continuation of the operation.

3 Deliberate Attack. The basic objective of offensive operations is to break through the enemy's main defensive zone into his rear area in order to destroy artillery positions, command posts, logistics support areas, air defense artillery positions, and lines of communication. Periodically the battalion task force or the force of which the task force is a part will encounter a well prepared, strongly-held enemy defensive position that cannot be eliminated with a hasty attack. When this happens, the entire force will pause, taking sufficient time to prepare for and conduct a *deliberate attack*.

A force larger than a battalion is normally assigned the mission of breaking through. To do this, the force concentrates overwhelming combat power into a rapid, violent attack on a narrow front through the enemy defensive system. In such an attack, the battalion task force may be assigned the mission to penetrate and drive rapidly through the enemy position, moving around the flanks of enemy strongpoints in order to quickly get into the enemy rear area.

Detailed information about the enemy must be collected from higher, lower, and adjacent units. Sources include patrolling, reconnaissance by fire, aerial photographs, prisoners, line crossers, electronic warfare, radar, sensors, and any other means. Information about terrain can be collected from many of these same sources. Leaders at all levels should look at the actual terrain in daylight, and if the attack is to be conducted at night, they should look at it at night also.

The likelihood is remote that terrain can be seen in detail or reconnoitered in detail more than four or five kilometers into enemy territory. Therefore the detailed planning of maneuver and fires will usually be restricted to this area. Planning for actions beyond this limit must be more general, with maneuver of forces and fires sketched out in broader terms and with units prepared to exploit any opportunity presented by terrain and enemy weakness.

Two broad options will normally be present when a deliberate attack has successfully breached enemy defenses. The first is to *press forward* with committed forces toward the

**ALL INTELLIGENCE SOURCES
ARE UTILIZED**

next echelon of enemy defenses or the enemy rear area. The second is to *turn left or right* to roll up more enemy positions, one after another, from the flank, while the larger force exploits the breach with other forces. Most often the action will evolve as a series of hasty attacks.

**DELIBERATE ATTACKS REQUIRE
MORE PLANNING TIME THAN
HASTY ATTACKS**

Application of fundamentals is as important in deliberate attacks as in hasty attacks. Time is the biggest difference. For a deliberate attack, time must be made available for the collection and evaluation of enemy information, reconnaissance, planning and coordination. *The battalion task force may itself be reorganized* and will often change internal organization to optimize each force for the task it will be assigned. New units may be attached or placed in support of the battalion task force or to subordinate units. Time must be available to thoroughly familiarize replacements with the situation, mission, standing operating procedures, and communications and electronics operating instructions. Time is used for careful assignment and coordination of missions of tank, mechanized infantry, attack helicopter, artillery, antitank, mortar, engineer, bridging, surveillance, air defense, maintenance, medical, supply and signal assets. Each contributes to SEE-SUPPRESS-MOVE and each must be used to best advantage.

In planning a deliberate attack, the battalion task force commander and his staff follow the steps described in troop leading procedures in Chapter 3. Time, as a resource, must be spent profitably. Warning orders and reconnaissance are of special importance. Warning orders serve to initiate and orient activities in preparation for the attack. Reconnaissance of the terrain over which the attack is to be made can eliminate the danger of units becoming lost, misoriented or out of step with the sometimes precise timing of the attack.

Bringing subordinate commanders together for issuance of the order is an important advantage usually not available in a hasty attack. The operation can be explained in detail so that there are no doubts

about who is to do what, and when it is to be done.

The power of a deliberate attack comes from the fact that units down to platoon and even squad size can pre-plan their initial actions and thus develop and apply to the enemy a very high percentage of the combat power available.

If the order is issued at a forward location, the battalion task force commander can indicate points of interest on the ground as well as on the map. With all commanders present, coordination among company teams can be started immediately and often can be completed before they disperse to continue their preparations.

The battalion task force commander and staff supervise preparations and execution of the plan. The commander and selected assistants must be well forward in the attack so as to exercise control. Success of the operation depends to a large degree upon immediate reaction by the commander to the situation as it develops. He must literally *SEE in order to effectively SUPPRESS and MOVE.*

EXAMPLE OF DELIBERATE ATTACK

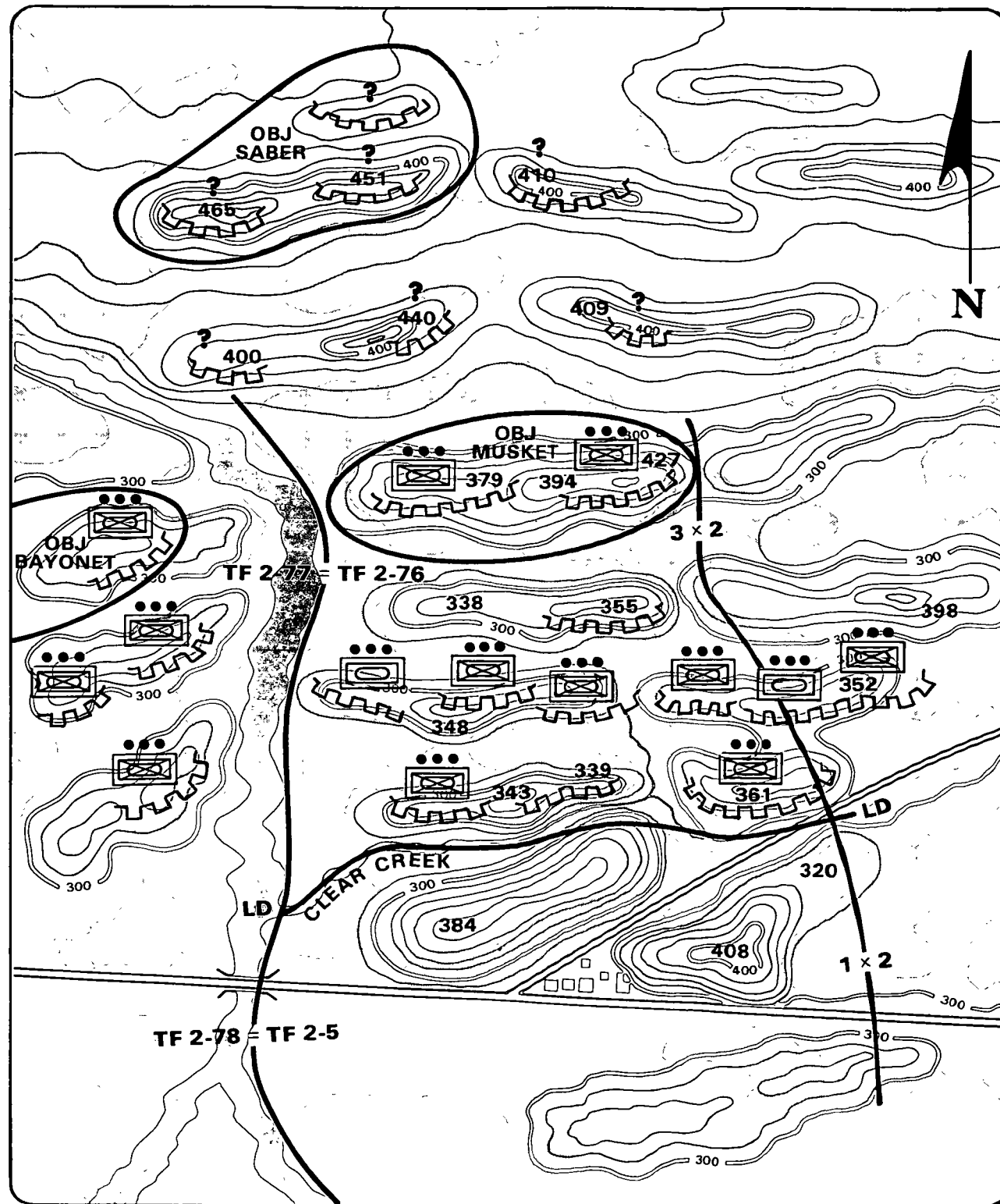
Task Force 2-76 Mech is part of 3d Brigade; 3d Brigade has been in reserve for the past 24 hours. The division is preparing a deliberate attack to break through this line of defenses. Commander, Task Force 2-76 Mech received the 3d Brigade warning order at 0600 hours and in turn alerted his units. The commander and S3 reported to the brigade command post at 0830 hours to receive the attack order.

CONTINUED

SITUATION MAP

Fold out for use

LEAVE THIS PAGE EXTENDED TO FACILITATE FOLLOWING THE ACTION DESCRIBED IN THE FOLLOWING PAGES.



The order, in part, stated: "3d Brigade attacks at 1400 hours today through 1st brigade, with TF 2-76 Mech on the right making the main attack to secure objective MUSKET, TF 2-77 Mech on the left to secure objective BAYONET. TF 2-4 Armor is in reserve initially, will follow TF 2-76 Mech, prepared to assist or assume the mission of either leading task force, and when the brigade has broken through enemy regimental first echelon defense (secured MUSKET and BAYONET) TF 2-4 Armor will continue the attack to secure objective SABER."

The commander, S3, and FSO made preliminary coordination with other commanders and staff and then returned to their own command post. There a further warning order was issued to the companies and staff, and sent as information to supporting units. This order stated:

"TF 2-76 Mech attacks north at 1400 hours today to secure an objective at hills 379, 394 and 427.

The order also instructed persons designated in SOP to receive tactical orders to report to a forward location at 1015 hours. Several actions were started simultaneously. The commander restated and explained the mission to his staff, issued instructions and received reports. These included:

Sending the S2 to visit TF 2-5 Armor, the unit through which TF 2-76 Mech would attack. His tasks were to gather information about terrain and enemy, and to coordinate the reconnais-

sance by TF 2-76 Mech commanders and staff.

Starting the scout platoon on a reconnaissance of routes from present locations toward the line of departure.

Asking the fire support officer, accompanied by the heavy mortar platoon leader, to coordinate with TF 2-5 Armor on targets.

Learning that all units had acknowledged receipt of the warning order.

Learning that the attached tank company and supporting units had arrived and the detached mechanized infantry company had departed.

Learning the current status of maintenance, supply and personnel strength.

For this attack TF 2-76 Mech had available:

Hq and Hq Co. 2-76 Mech
 Combat Support Co. (less 2 TOW Sec.) 2-76 Mech
 A and B Co. 2-76 Mech
 C Co. 2-4 Armor
 1st Plt, B Bty 421st ADA (DS)
 1st Plt, C Co. 52 Engr (DS)

There are no restrictions on mortar ammunition. 3d Brigade is supported by one 155 FA battalion (DS) and two 155 FA battalions (reinforcing): 2-76 Mech has priority of fires. There are six CAS sorties available to 3d Brigade.

Commander 2-76 Mech considered several broad plans for attack on his way

forward to an observation post in the area of TF 2-5 Armor. Upon arrival, the CO, S2, S3, and FSO compared their maps to the terrain they could observe. The S2 reported on the terrain and the enemy situation.

"Sir, our assigned zone consists of four cross compartments. Observation and fields of fire from hilltop to hilltop are excellent, as you can see. We can shoot over the wooded areas in between. The woods can provide concealment, but we can get our vehicles through them without great difficulty. The river is an obstacle to tanks and protects our left flank all the way to the objective. The east (right) slopes of hills 348 (second line of hills) and 427 (objective) are also obstacles. We will have a lot of trouble trying to assault up either of them from the right. All these aspects considered, the best avenue of approach is along the left, the second best one is up the right center.

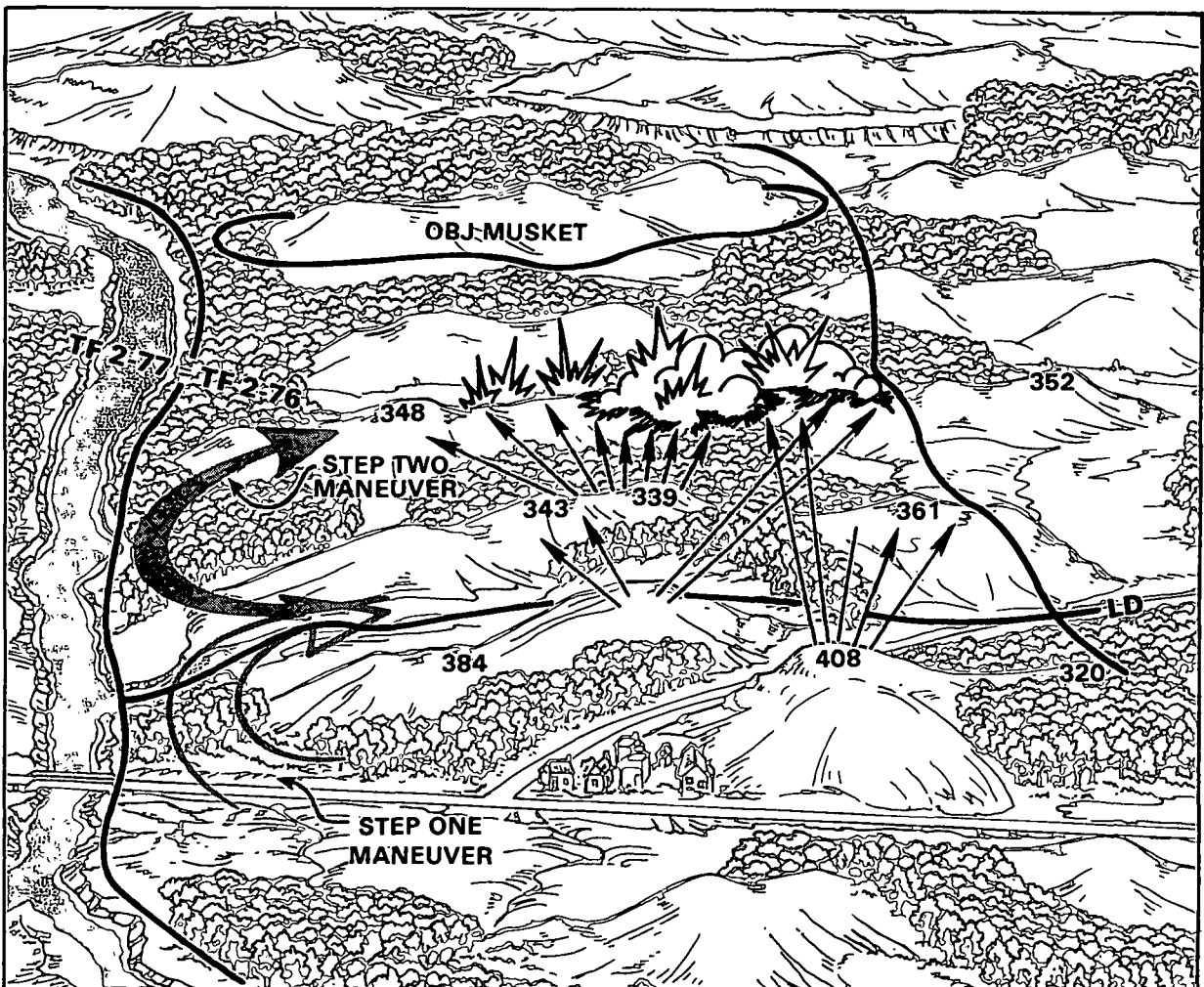
The enemy is defending three of the four ridgelines. Light forces hold the first, their main defenses are along the second, the third has fortifications but is unoccupied, and the enemy battalion second echelon is on the fourth. There are eight motorized rifle platoons and about two tank platoons all told. There are another four motorized rifle platoons and a tank platoon in the zone on each side of us and they all could influence our attack unless something is done about them. TF 2-77 Mech and 2d Brigade should keep them occupied. I believe the enemy will defend from the positions he's in now."

For the next half hour, the commander, S3, S2, and FSO huddled to consider the situation. The commander's estimate was as follows:

"We do not outnumber the enemy overall, but we can overcome him by concentrating against one enemy platoon at a time and by capitalizing on the sup-

*porting fires of TF 2-5 Armor. We must coordinate with 2-77 Mech for suppressive fires on the enemy in their zone. We must also plan for suppression of enemy positions across the river in case TF 2-77 Mech is unable to destroy them. **Step One** includes moving the force to the line of departure. While artillery, our mortar platoon, the mortar platoon of TF 2-5 Armor and 2-5 Armor's direct*

fire weapons suppress Hill 343 and Hill 361, TF 276 Mech will move up the left side of the zone and attack the enemy platoon on Hill 343 from the flank. By this time 2-77 Mech should be making their supporting attack into the first ridge line. Suppressive fires by artillery and mortars will shift to 348 and 352, the second ridgeline, as we clear the first position.



Step Two includes maneuver to the left by two teams while the third provides direct suppressive fire from 34-3-339. TF 2-5 Armor can

continue direct suppressive fires in the right part of the zone without danger to friendly troops. Maneuver to the left permits an assault on

the enemy main defense line from the flank so that enemy platoons can be isolated and destroyed in succession from left to right.



•

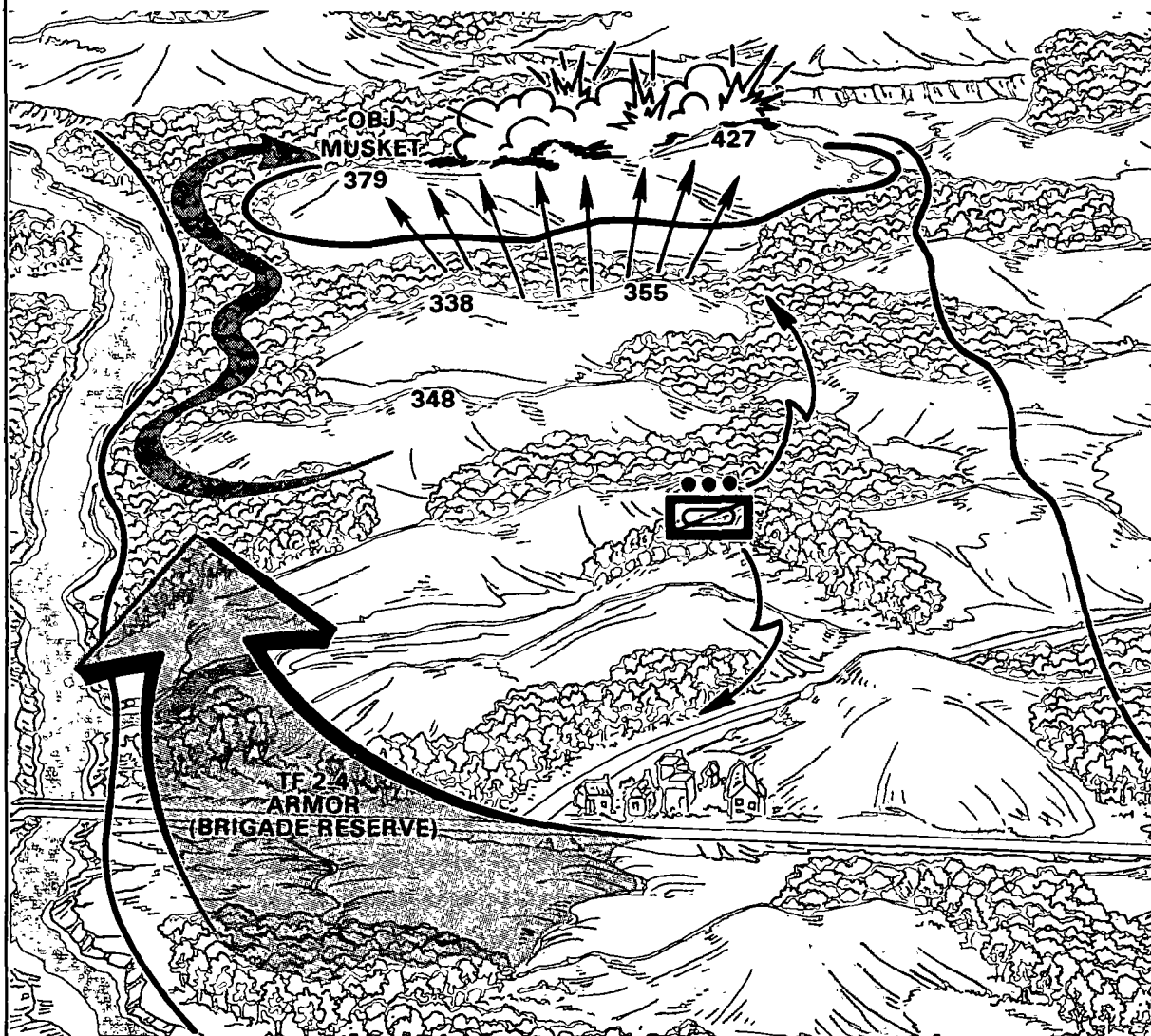


In **Step Four** the two teams on 348 will move up behind the masking of 338-355 and again assault from the left, taking out enemy platoons one at a time. Fires will be shifted from left to right, from

379 to 427, as the assault force advances.

All three teams should be organized mechanized infantry heavy. The team which is in single overwatch

in steps 2 and 4 should be organized around a mech headquarters so that it has its own TOWs, and also mortars to assist in suppressing. The antitank platoon can be in general support and move



with the single team. It will always be in good overwatch positions. The scout platoon, with two ground surveillance radars, should screen the right flank. An enemy counterattack is more likely to come from that direction

due to the obstacle on the left.

This plan will accomplish the mission. It takes advantage of the unoccupied hill in front of the objective, allows concentration of at least six

platoons on each enemy platoon in turn, and supports the brigade scheme of maneuver by opening a corridor for TF 2-4 Armor while MUSKET is being mopped up."

The commander told the S3 to forget about a written order for now, but to prepare overlays for distribution by tracing them off of the commander's map. He also told him to put the task organization on the overlay, and to alert the teams to it

immediately so that they could take the necessary reorganization actions as soon as possible.

When subordinate commanders arrived at the OP, the task force commander pointed out prominent terrain features to them,

indicated the line of departure, avenues of approach and the objective, and outlined the enemy and friendly situation. He then moved the group to a more covered position and explained the scheme of maneuver, plan for fire support and other details.

TASK FORCE ORGANIZATION

TEAM A	TEAM B	TEAM C
● Headquarters, A/2-76 Mech ● 2 mechanized infantry platoons ● 1 tank platoon ● 1 weapons platoon • 81 mm mortar section • TOW section (2 TOWs) ● 1 Redeye Tm (DS)	● Headquarters, B/2-76 Mech ● 2 mechanized infantry platoons ● 1 tank platoon ● 1 weapons platoon • 81mm mortar section • TOW section (2 TOWs) ● 1 Redeye Tm (DS)	● Headquarters, C/2-4 Armor ● 2 mechanized infantry platoons ● 1 tank platoon ● 1 Redeye Tm (DS)
TASK FORCE CONTROL		
● Scout Platoon • 2 GSR ● Heavy Mortar Platoon ● *Antitank Platoon (less 2 sections)	● Redeye Section ● Ground Surveillance Section (less 2 radars) ● 1 Vulcan Platoon (DS) ● 1 Engineer Platoon (DS)	*2 TOW sections accompanied C Company upon detachment at the direction of brigade.

The commander presented his concept as follows:

"Team A will lead across the LD. The command group comes next, followed by Team B, scout platoon, antitank platoon and Team C.

After securing Hill 343, Team A, antitank platoon and scouts with radar will remain, while Teams B and C and the command group continue the attack to Hill 348. Team A and AT platoon

must suppress to the front, right front and right in conjunction with TF 2-5 Armor. The enemy platoon at right must not interfere with task force maneuver.

FSO will control indirect fire on Hill 348. Instructions for shifting direct fire on Hill 348 to the right as the assault progresses will be given to Team A on the command net. As soon as Hill 348 is secure, Team B will fire on the enemy

platoon at the base of the hill and on the enemy platoon on Hill 352 across the valley.

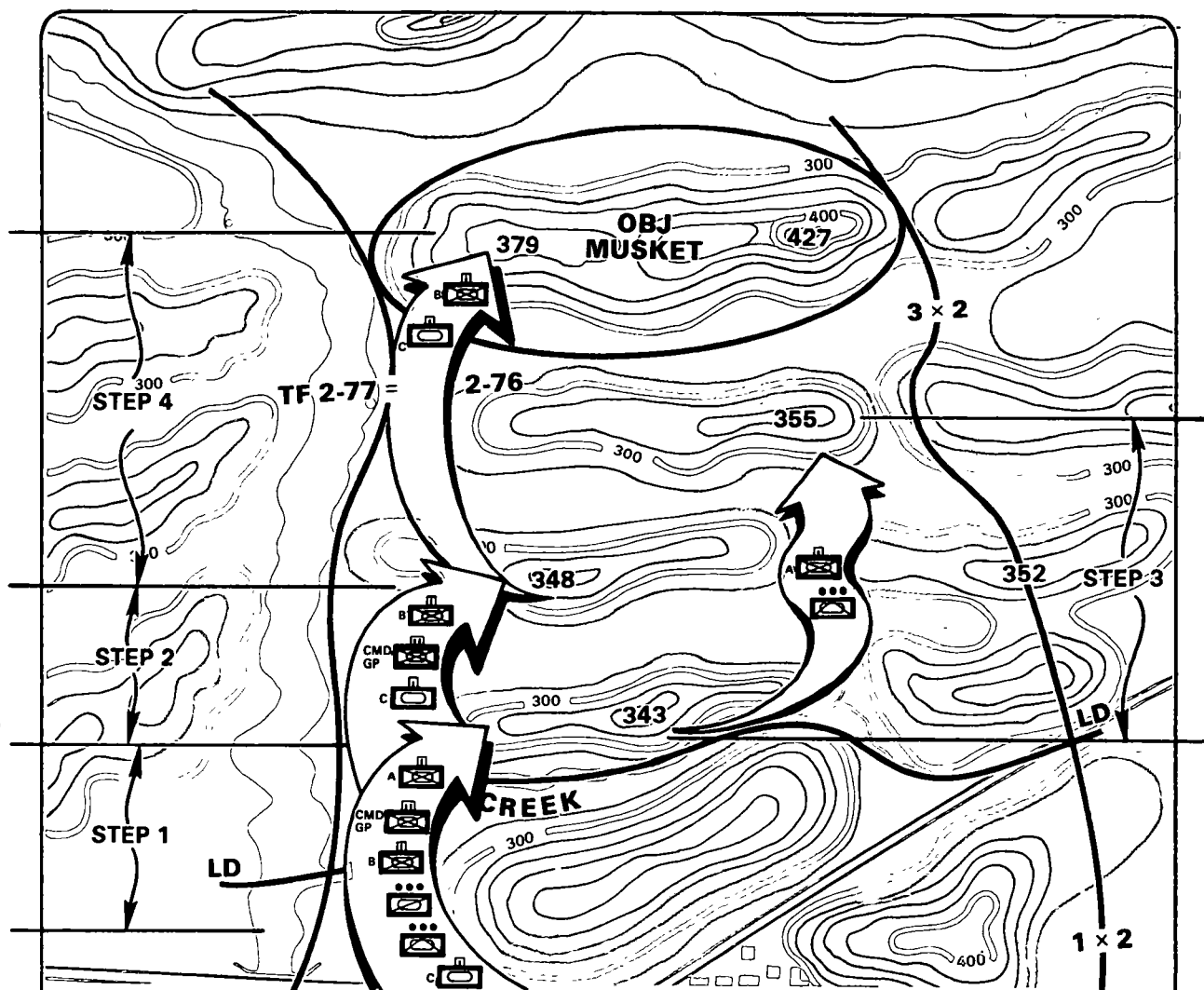
While Team A assaults through the woods and moves on to Hill 355, C will suppress. The AT platoon will follow Team A.

Scouts with radar must be in position on Hills 355 and 348 before the final assault starts. Control of fires on Objective MUSKET will be

STEP
1

STEP
2

STEP
3



the same as in the earlier step.

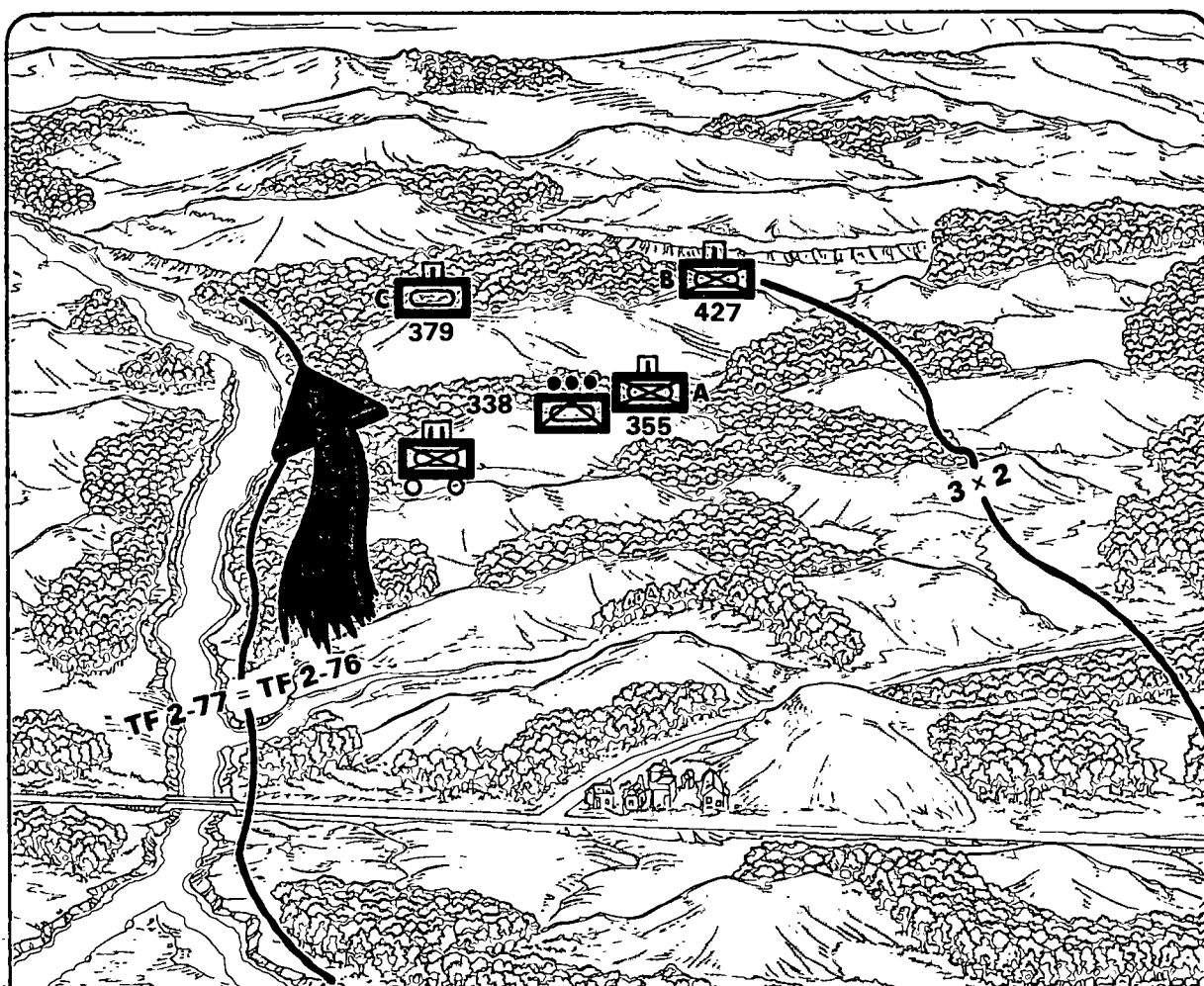
If a counterattack develops from the right, the scouts should see it first. Team A and the AT platoon will be in position to fire against it until Teams B and C have secured MUSKET.

S3, be sure to plan for suppression of enemy positions across the river in case TF 2-77 Mech is unable to destroy them. We also need to keep in close touch with the TF on our right.

Consolidation must be completed quickly, both to insure that TF 2-4 Armor can take up momentum of the attack, and so that we are ready to defeat a counterattack. With that in mind, Team A will remain on Hill 355 and orient to the east. Team B on Hill 427 and Team C on Hill 379 will orient north. Team C can best assist passage of its normal parent headquarters. If a counterattack comes from the north, northeast or east, we will have two teams in position to defeat it. If it comes from the northwest,

TF 2-4 Armor will meet it first.

We must be prepared to carry on even if the enemy jams our command net. Your understanding of my concept is a vital part of our ability to do that. We'll have our usual pyrotechnic capability for signaling when we want fires lifted or shifted. Your CEOI has today's system. Be sure you follow it. Also, if I cannot reach one of you on the command net due to jamming, I will call you on your net.



Combat trains will move up behind Hill 338 during Step 4 and move forward on order for reorganization. Priority for resupply is ammunition, then fuel.

Reorganization must be completed as quickly as possible. The task force must be ready to defend, to attack, or to follow TF 2-4 Armor. If TF 2-4 Armor is successful in

breaking through the enemy regimental second echelon, then TF 2-76 Mech must be ready to exploit the breakthrough."

Other items considered and decided upon were:

Heavy Mortar Platoon is in general support. It moved into position in TF 2-5 Armor's area well before the attack started. It would displace forward to a position behind Hill 348 prior to Step 4.

Redeye Section placed one firing team in direct support of each company team, one

with combat trains and one with the command post.

Ground Surveillance Radar Section (minus) is in general support. It planned to move to Objective MUSKET during reorganization, to set up surveillance sectors north and northeast.

Air Defense Platoon, in direct support, moved two Vulcans with Team A, two with Team C, and the platoon

leader with the battalion task force command group. Since the platoon is split, the leader cannot be with all four weapons. By moving with the command group, he will always be near part of the platoon, and responsive to the commander.

Engineers were instructed to move one squad with Team A so that if mines or tree blowdown blocked

progress in Step 3, engineer support would be available. The remainder of the platoon was to move with Teams B and C, close enough to assist in overcoming any obstacle, but not in the lead of any assault. They were to destroy any bunkers encountered on Objective MUSKET.

Field Artillery support presented no special problems. The Fire Support Officer and forward observer parties planned suppressive

fires on all known enemy locations, along the flanks, and beyond Objective MUSKET, to best support maneuver of the battalion task force.

After insuring that all aspects of the operation were understood, the task force commander released the group to go about their separate tasks. Subordinate commanders completed their reconnaissance and plan-

ning. Staff officers moved off to supervise final preparation for the attack and to prepare a record copy of the order.

This attack involved a brigade penetration preceded by task force penetrations. Task Force 2-76 Mech planned a series of envelopments to take advantage of the opportunity to concentrate against single enemy platoons by assaulting from the flank while suppressing from the front.

THE BATTALION TASK FORCE IN BRIGADE RESERVE

A brigade conducting a deliberate attack may often retain a two or three company battalion task force in reserve initially. The commander and staff of a battalion task force so designated face a planning task unlike any other, and in many ways more complex than the task of planning a main or supporting attack. A reserve is held initially to exploit success and continue an attack already under way, to maintain momentum of an attack by adding a fresh unit at a critical time, and to provide security.

To be responsive to the brigade commander's needs, the reserve must be far enough forward to quickly move into action when directed to do so. On the other hand, it should not be so far forward as to be engaged by enemy direct fire weapons and mortars or it may be tied down prematurely and not be available to fire or maneuver at the direction of the brigade commander. Finally, while the enemy situation may be clear at the beginning of a deliberate attack, the situation which will exist when the reserve is committed may not be known far in advance. All of these complicate the planning task. A battalion task force in brigade reserve may be instructed to prepare for a number of contingencies. Among these are:

PROPER POSITIONING OF THE RESERVE IS ESSENTIAL TO ITS EVENTUAL USE

Assist a leading task force. This may require overwatching, providing suppressive fire, or maneuvering. Any of these may require commitment of a single team or the entire task force.

Assume the mission of a leading task force. This requires the reserve task force to attack through or around the leading task force to secure the objective or objectives assigned to that task force. Attacking around is preferable for three reasons. First, a passage of lines can be difficult in the best of times; the midst of an attack is not one of them. Second, passage through the leading task force will place the former reserve in a frontal approach to any enemy force facing the passed unit. Third, if an opportunity sufficient to warrant commitment of the reserve is present, it usually will not lie in passing straight through a committed force but in going around it one way or the other.

If there is a *"continue the attack"* contingency which can be planned in as much detail as the example of the mech heavy task force deliberate attack, then the commander should task organize for that mission. If the situation is vague from the task force point of view, balanced teams may be best.

The reserve commander needs to know the brigade concept in great detail, including any clues as to when and where the brigade commander feels the reserve may be committed. He also needs the concepts of leading battalion task forces so that should the reserve be committed through or around

any of them, he will have information as to their scheme of maneuver and plan for fire support. When the attack is under way, there should be representatives of the reserve in the command posts of leading task forces. *Many brigades require the commander of the reserve to join the brigade command group.* Such an SOP provides the advantage of permitting the reserve commander to **SEE** the attack develop as the brigade commander sees it and thus can get forewarning of commitment. Face to face with the higher commander, there will be no time lost nor any misunderstanding of the mission as might be the case if orders are transmitted electronically or by messenger.

In a fast moving operation, the reserve may move continuously behind a designated force. Deliberate attacks are likely to be relatively slow. The reserve should plan to move on at least two routes so as to have combat units well forward but should also plan dispersal areas where portions of the task force can obtain cover or concealment if held up even momentarily. Movement on multiple routes and provision for dispersal are both ways of providing security for the task force, and make it more difficult for the enemy to detect the direction of the brigade main effort.

Continuing the example of the deliberate attack, the task force in reserve is called upon.

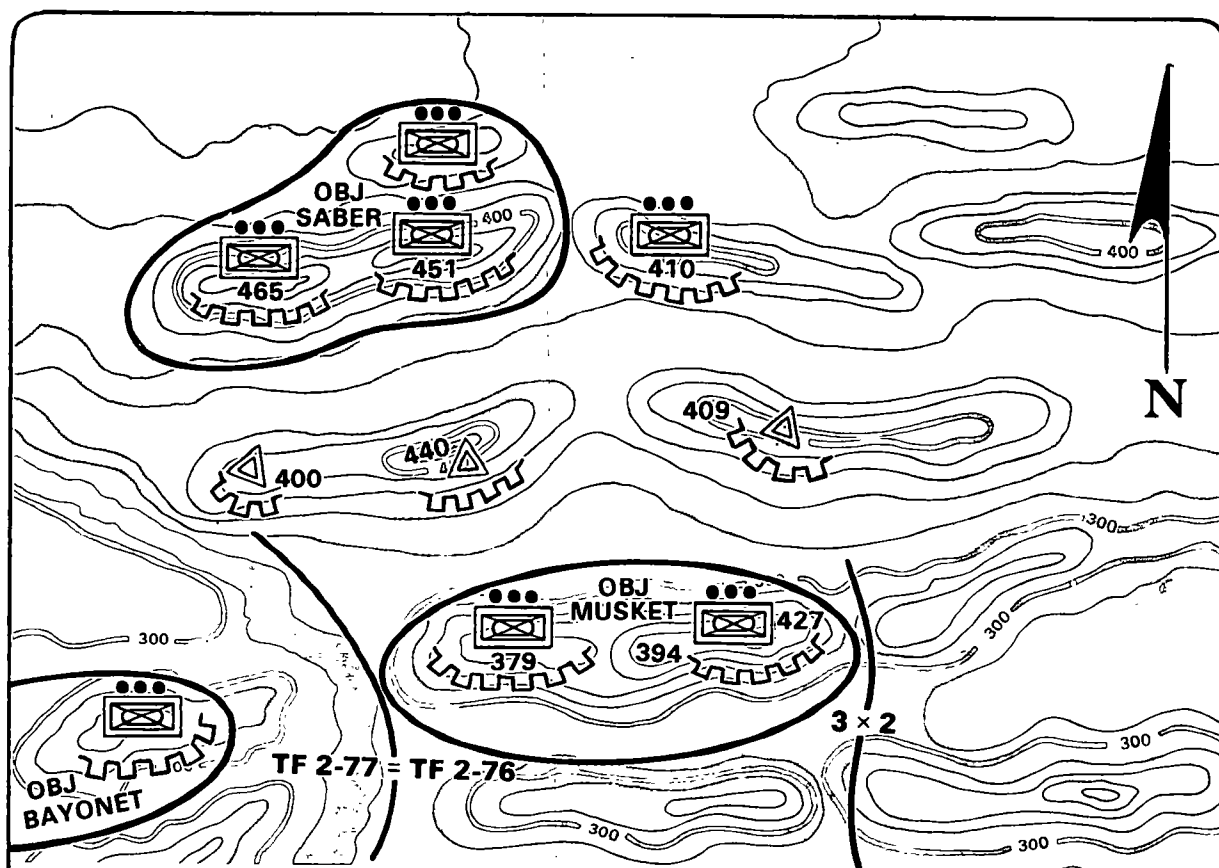
Task Force 2-4 Armor, part of 3d Brigade, received the warning order and order at the same times as TF 2-76 Mech. TF 2-4 Armor, in addition to moving behind TF 2-76 Mech as brigade reserve initially, was told:

"and when the brigade has broken through enemy regimental first echelon defense (secured MUSKET and BAYONET)...TF 2-4 Armor will continue the attack to secure Objective SABER..."

The commander of TF 2-4 Armor followed the steps of troop leading procedure much as followed by commander TF 2-76 Mech. He and other members of the battalion task force made a detailed map reconnaissance and moved to a series of forward OPs to learn as much about the assigned zone as possible, even though it was beyond objectives MUSKET and BAYONET.

Analysis of the terrain provided the following: From

objectives BAYONET and MUSKET forward to Objective SABER, observation and fields of fire will be good, especially from the hilltops. Forested areas which largely fill the low lying areas between the LD and the first objectives thin out and disappear beyond. Concealment is available in the few wooded areas, especially between MUSKET and Hill 400-440, and in one area between 400-440 and Objective SABER. Cover is found in low areas where ridgelines mask them from



other ridgelines. The river between TF 2-77 and TF 2-76 is an obstacle to vehicular movement. Beyond BAYONET the river bends to the west. Forested areas in the near distance can easily be negotiated by vehicles and forests beyond MUSKET will probably be the same. Objectives BAYONET and MUSKET represent key terrain. They will be under friendly control when our attack starts. SABER is key terrain as is Hill 400-440 and the near ends of the adjacent hills, 409 and 410. From MUSKET to SABER the zone consists of two cross compartments. Avenues of approach appear to be present along both boundaries, that is, along the river, then west of Hill 400 to

SABER, and along the brigade boundary, west of Hill 409 to SABER, and one exists through the forest beyond MUSKET, over Hill 440, and on to SABER. Combinations can be used. The best avenue of approach is through the forest, east of Hill 440, through the wooded area north of 440, and on to the east end of SABER.

Enemy information available from brigade indicates that BAYONET and MUSKET are occupied by the second echelon of forward battalions. Beyond these we can expect some light local security forces, especially on 400, 440 and 409. There are indications of some entrenchments on each

hilltop and some minor enemy activity. These are probably observation posts, with one platoon manning all three. They may be occupied by parts of two platoons. SABER is fortified and occupied. If the enemy follows the pattern of previous defenses this will be a motorized company with two platoons on 465-451. Hill 410 is fortified and occupied by at least a platoon. There will be more units further north and east but no information is available about that. The enemy regimental and division reserves have not been located. The enemy will defend his present positions and will counterattack to try to eliminate the 3d Brigade penetration.

By 1130 hours the plans of TF 2-77 Mech and 2-76 Mech were available to the commander of TF 2-4 Armor. Liaison parties to both task forces had learned the scheme of maneuver of each and reported to TF 2-4 Armor. It was learned that Bayonet and Musket would be assaulted at about 1500 hours and that TF 2-4 Armor, which would be following TF 2-76 Mech, could pass between the objectives before 1530 hours.

The commander and S3 of TF 2-4 Armor recognized the desirability of moving out to continue the attack toward SABER with minimum delay. They also recognized the advantage of passing around TF 2-76 rather than through it, over the top of Objective MUSKET. Further, since 2-

76 Mech was maneuvering generally along its left boundary and suppressing enemy forces to the right, TF 2-4 Armor should generally follow the same route to avoid becoming involved unnecessarily with remnants of enemy forces between the line of departure and MUSKET.

They recognized the likelihood of counterattack by an enemy tank company, possibly reinforced. While there was no information about tanks on Objective SABER, a strong possibility existed that some tanks were present. The commander and S3 estimated the overall combat power ratio to be about two to one and realized that their plan must include both a way to concentrate several platoons against

single enemy platoons, and a way to defeat the enemy counterattack they believed they would face.

Considering MISSION (secure Objective SABER, set the stage for exploitation through the remainder, if any, of the defense belt to the enemy rear), ENEMY (at least four motorized rifle platoons reinforced, a counter-attacking tank company), TERRAIN (series of key ridgelines, some forested areas) and WEATHER (clear, dry, onset of darkness), and, TROOPS available (two tank companies, mechanized infantry company, combat support company, air defense platoon, engineer platoon, and supporting artillery) the commander and staff of TF 2-4 Armor made the following plan:

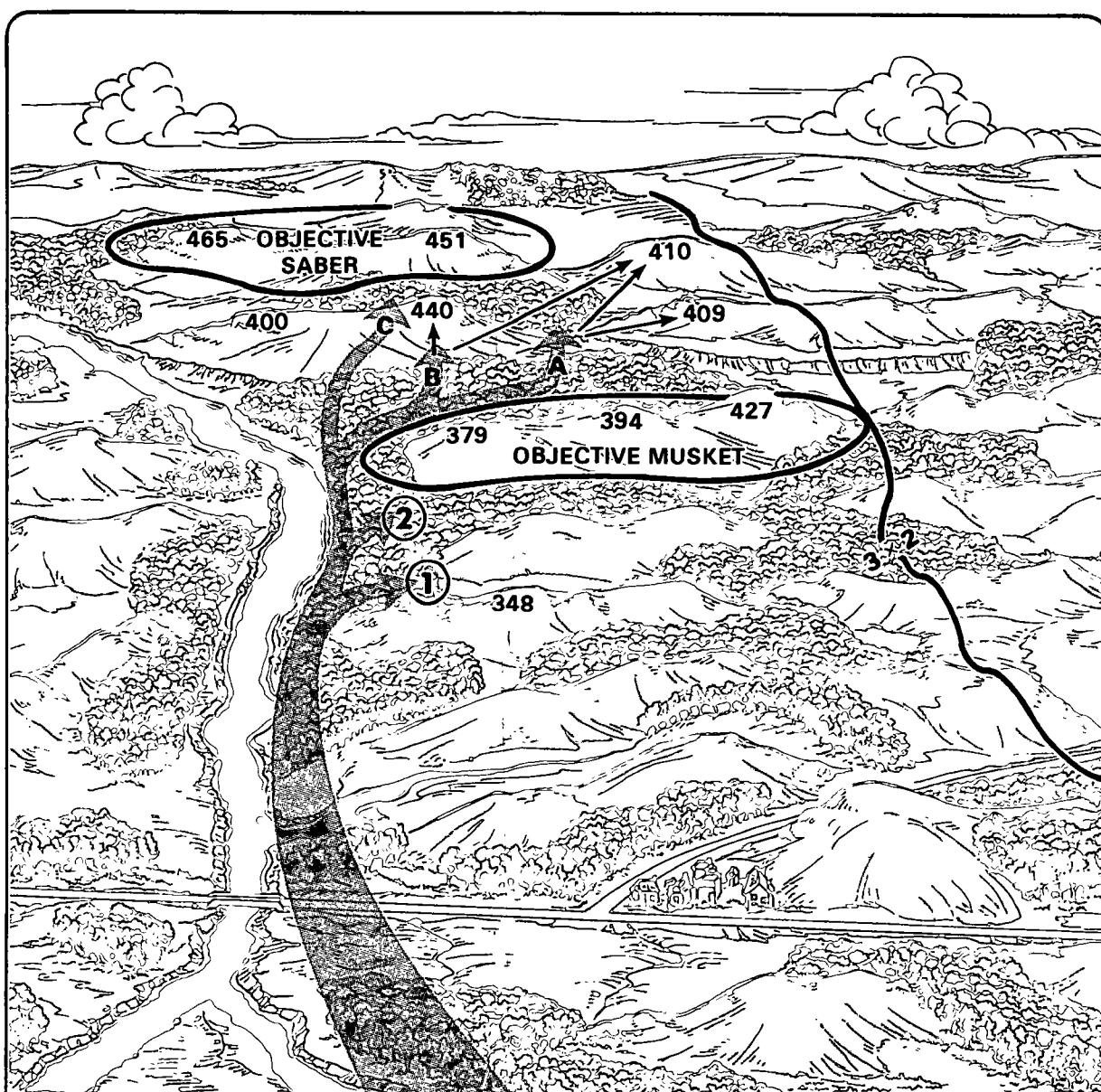
TASK FORCE ORGANIZATION

TEAM A	TEAM B	TEAM C
● Co A/2-4 Armor (-) ● 1/C/2-76 Mech ● 1 Redeye Tm (DS)	● Co B/2-4 Armor (-) ● 2/C/2-76 Mech ● 1 Redeye Tm (DS)	● Co C/2-76 Mech (-) ● 1/A/2-4 Armor ● 2/B/2-4 Armor ● 2 TOW Sec ● 1 Redeye Tm (DS)
TASK FORCE CONTROL		
● Scout Plt ● Hvy Mort Plt	● GSR Sec ● Redeye Sec	● 2/B/421 ADA (DS) ● 2/C/52 Engr (DS)

The task force will move out in order of Scout Platoon, Team A, Team B, GSR section, Heavy Mortar Platoon, Engineer Platoon, CP, Team C, and combat trains with AVLB section. The task force will not pass through positions of TF 2-5 Armor near the LD until TF 2-76 Mech has secured their

second ridgeline (Hill 348). Team A should move to a dispersal area vicinity of checkpoint #1 after the forces of TF 2-76 Mech depart, so as not to interfere with their movement. Scout Platoon will maintain contact with the rear of TF 2-76 Mech and insure that Team A and the combat trains of TF 2-76

Mech do not interfere with each other. When TF 2-76 Mech starts their assault on Objective MUSKET, Team A should move toward checkpoint 2. Scout Platoon continues to maintain contact with TF 2-76 while TF 2-4 Armor passes west of Objective MUSKET. Some suppressive fire to the front

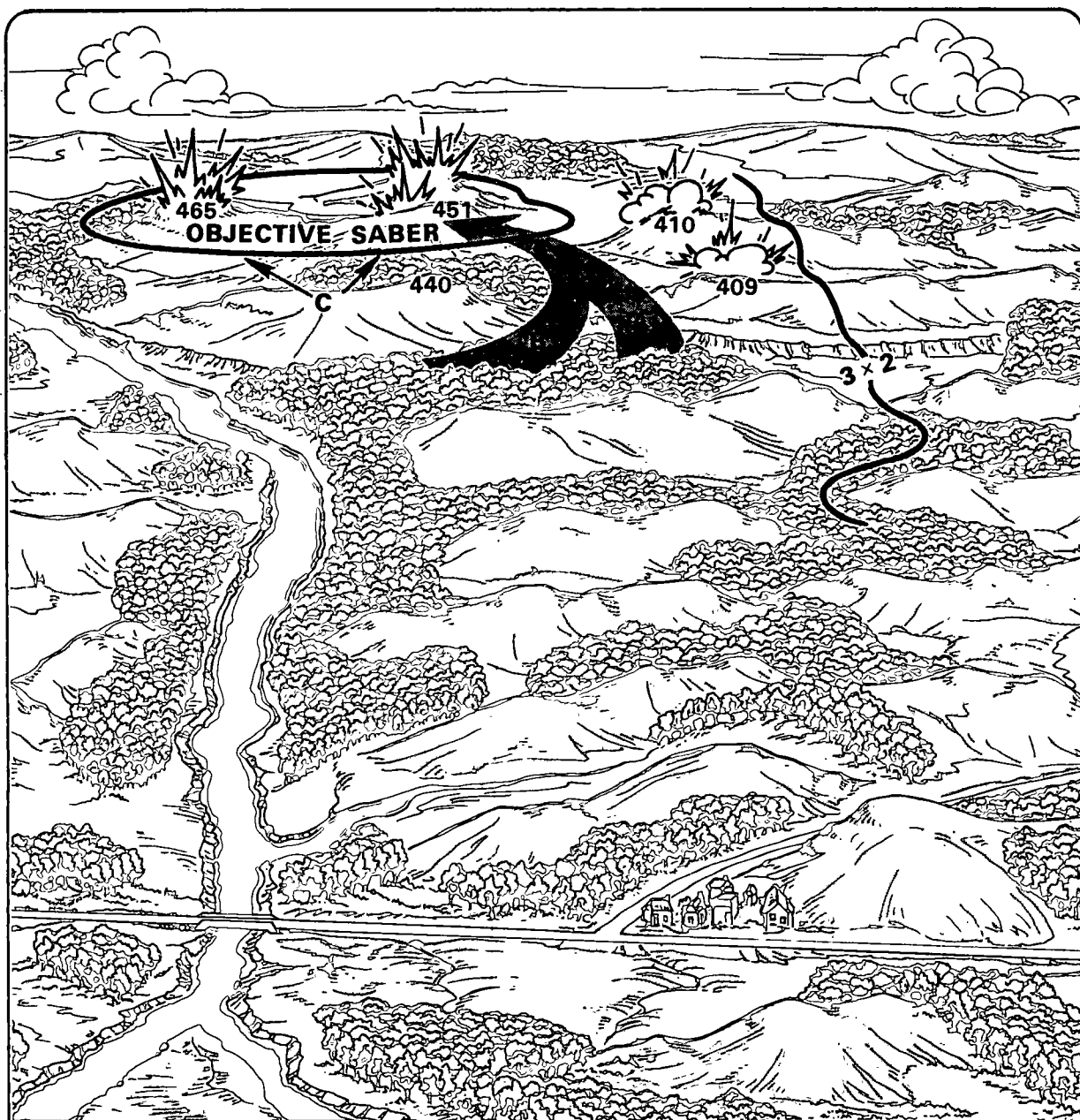


may be provided by TF 2-76 Mech. Also it will have to resupply so that they will be ready to continue the attack or assist in defeating a larger enemy counterattack.

Upon passage by Objective MUSKET, Team A will stay inside the woodline until it reaches a point directly south of the saddle between Hills 440 and 409. From there it will suppress 409 and 410.

Team B will move to a point directly south of 440 and will suppress 440 and 410. Team C will move through the forest generally due north and assault to secure Hill 440. If it is necessary, Team C will also assault west along the south side of the hill to eliminate the other local enemy security, OP, or whatever force remains there. Once Hill 400/440 is

secure the GSR section will join Team C. Scouts will be observing the north side of MUSKET to insure that remnants of enemy forces do not surprise TF 24 Armor in the forest from the south. Thereafter scouts will move to screen the left flank of the task force. Heavy Mortar Platoon will be available to fire in support of Team C from a position near MUSKET.

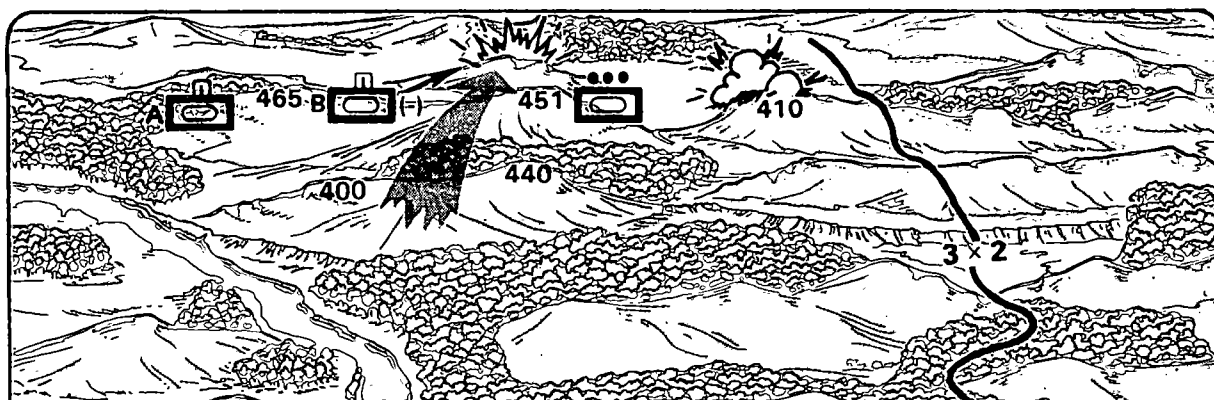


When Team C has **400-440** under control it will commence suppression of Objective SABER and **410** with direct fire and control indirect fire on SABER, **410** and **409**. Teams A and B will then move quickly through the saddle between **440** and **409**, through the small wooded area and into SABER

from the right flank. Team A will lead initially. From the woods onward Team B will be on the right, Team A on the left. I will move with Team A and will control the assault personally. SABER includes a smaller occupied hill farther north, so assaulting teams must use masking of Hill **465-451** as

much as possible. Team B should leave some force on Hill **451** to secure it and protect the rear of assaulting forces.

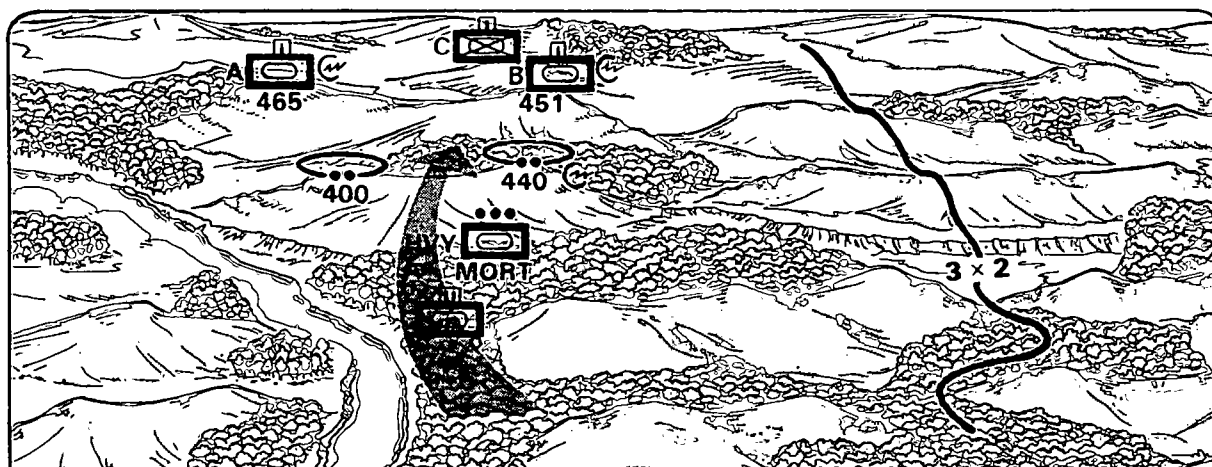
Fires on **465-451** will be shifted left as the assault progresses but will continue on **409**, **410** and the north hill in SABER.



As soon as **465-451** is overrun, Teams A and B will place direct suppressive fire on the northern hill while Team C maneuvers by the most direct route to assault.

Team C should keep the woods between them and any enemy forces beyond the brigade boundary. Task force mortars will continue to suppress **Hill 410**, and

artillery fire will be concentrated on the remaining portion of **SABER** under enemy control until lifted by Team C.



Once all of Objective Saber is occupied, the mortar platoon can locate behind **Hill 440** while combat trains come forward along the route of Team C. The general plan for consolidation will be as follows: Team A on the left will orient northwest; Team C in the center will orient north; Team B on the right will orient east. Teams A and B will have radars. The scout platoon will outpost **Hill 400** and **Hill 440** and will have a radar on each. Detailed fire

planning for defense of **SABER** will be among the first priorities as soon as it is secured. Such planning can be done in detail only after the actual ground can be seen.

An enemy counterattack can come from the west, north, northeast, east or southeast. The task force is most vulnerable during step 2 while Teams A and B are maneuvering to **SABER** and assaulting. Team C and

scouts will overwatch to detect a counterattack as early as possible. If it comes during step 2, Team C must relocate as necessary to deliver direct fire against it and to adjust indirect fires until the task force command group is able to take control of that fight.

Redeye, air defense platoon, engineers and field artillery were employed as described for TF 2-76 Mech.

④ **Exploitation and Pursuit.** The ultimate objective of combat operations is destruction of the enemy's armed forces and their will to resist. Exploitation and pursuit accomplish this objective. Commanders must always keep this in mind and be prepared to exploit success whenever the opportunity presents itself.

Breakthrough may be achieved abruptly or gradually. Enemy defenses consist of belts, echelons and lines of positions. Having broken through one, it is often necessary to move to and break through the next. The more rapidly this can be done, the less likely that succeeding lines will be fully prepared. When it can be recognized that the enemy is having trouble maintaining overall continuity, exploitation and pursuit will be ordered. Indicators that the enemy is in trouble are:

- ☐ Decreasing resistance
- ☐ Increasing numbers of prisoners
- ☐ Overrunning artillery positions
- ☐ Overrunning command posts
- ☐ Overrunning signal installations
- ☐ Overrunning supply dumps
- ☐ Overrunning supporting units

EXPLOITATION

The purpose of exploitation is to prevent the enemy from reconstituting an organized defense or conducting orderly withdrawal. This is done by rapidly advancing toward the enemy rear area, bypassing small pockets of resistance, and by destroying lightly defended and undefended installations and activities. A battalion task force exploits as part of a larger force and is usually assigned a terrain objective, often a great distance away. This objective may or may not be a critical area which must be secured. The objective of an exploiting force may be a critical communications center, port, mountain pass, or similar area, which if captured will contribute significantly to destruction of organized enemy resistance. Or, the objective may simply be a point of orientation, and serve no other purpose. The battalion task

force operates in an exploitation the same as in movements to contact, ready to conduct hasty attacks to destroy vulnerable targets.

Exploitation may be limited more by vehicle breakdown and by fuel than by combat losses and ammunition. Exploitation will be continued day and night as long as the opportunity permits. Plans made for other offensive operations should include provisions for exploitation. This means that combat service support must always be present and responsive. As the exploiting force penetrates deeper into enemy rear areas, the length of supply lines obviously increases. Adequate stocks of fuel, spare parts and food, as well as of ammunition, should accompany the force. *Momentum of the exploitation must not be lost for lack of support.* Lines of communication must be secured.

One battalion task force operating behind enemy lines can damage the enemy more than many struggling through main defense positions. Destruction of undefended or lightly defended installations costs few casualties. The ability to penetrate to the enemy rear and destroy support activities rapidly is the major advantage and major goal of mounted operations.

In both exploitation and pursuit operations, the task force will often have dedicated field artillery battery support and the battery moves with the task force. Normally all combat service support elements move with the task force. As a general rule, four to six days of supplies should be carried. Disabled vehicles which can readily be repaired are towed forward to be repaired at the earliest opportunity.

**EXPLOITATION IS AN ONGOING
PROCESS, INCLUDED IN ALL
PLANS FOR THE OFFENSE**

PURSUIT

The purpose of pursuit is to complete destruction of an enemy force which has lost the ability to defend or delay in organized fashion and is attempting to disengage and withdraw. In exploitation, the attacking force seeks to avoid enemy units in order to destroy the enemy support system; *in pursuit, the attacker focuses on the major enemy force*. Terrain objectives may be assigned to orient pursuing forces and will usually be very deep. A division, for example, having broken through enemy defenses along the Mississippi River, might be ordered to "pursue enemy forces toward Kansas City." Pursuit operations require:

1 a direct pressure force:

to deny enemy units any chance to rest, regroup, or resupply, by keeping them in flight.

2 an encircling force:

to envelop the fleeing force, cut its escape route, and in conjunction with the direct pressure force, attack to destroy the enemy force.

Battalion task forces usually pursue as part of larger units. A battalion task force may operate alone or as part of a larger unit in either the *direct pressure* or the *encircling force*.

The direct pressure force conducts hasty attacks, always maintaining contact and forward momentum. The enemy is harassed, driven backward, weakened and attacked until it ceases to exist.

The encircling force moves as swiftly as possible by the most advantageous route to cut off enemy retreat. If necessary, it adopts hasty defense behind the enemy to block it. Caught between two forces, unprepared and unable to defend, the enemy must surrender or die.

When attack helicopter units and airmobile forces are available to the larger force, they are most often used as the encircling force while ground units are used in the direct pressure role.

Mechanized infantry and tank units perform equally well in encircling or direct pressure missions. The combination of mobility and armor protected firepower permit them to maneuver to successive advantages over the enemy. Adequate combat service support is at least as important in pursuit as it is in exploitation. Combat support may be more important in pursuit. Field artillery units are integrated into pursuing units so that they will always be available to fire into and beyond retreating enemy columns. Engineers must be well forward so that hastily erected barricades and natural obstacles will not impede progress of pursuing units or permit contact to be lost or permit enemy forces to reorganize.

A follow and support force is usually employed in exploitation and pursuit operations. Such a force is not a reserve but is committed to accomplish any or all of these tasks:

- Destroy bypassed enemy units.
- Relieve in place any supported units which have halted to contain enemy forces.
- Block movement of reinforcements.
- Secure lines of communication.
- Guard prisoners, key areas, installations.
- Control refugees.

A battalion task force operating as the follow and support force is normally responsive to the headquarters controlling the leading force.

5 Reconnaissance in Force. A reconnaissance in force (RIF) is an operation to discover and test enemy disposition, composition and strength, to obtain other information, and to develop the situation. A battalion task force or cavalry squadron is normally the smallest unit which conducts RIF, and may be used independently or as part of a larger force.

The decision to conduct RIF operations is made by a higher commander who believes that:

1. *The information to be gained is of vital importance.*
2. *The information cannot be gained from any other source.*
3. *The risk of revealing future plans is outweighed by the value of information to be gained.*
4. *The risk of danger to the force is outweighed by the value of information to be gained.*

A higher commander ordering a RIF must be prepared to exploit successes and enemy weaknesses, or to extricate the force should it become necessary.

As part of a larger force conducting RIF, a battalion task force may be ordered to remain in defensive positions, prepared to:

1. *Attack to exploit success of the maneuvering force or to exploit enemy weakness detected by the maneuver force.*
2. *Support the maneuvering force by fire or by fire and maneuver.*

RIF is conducted against an enemy force known to exist but about which other information is insufficient. It is planned and executed like a deliberate attack except for the lack of detailed knowledge of the enemy. The headquarters ordering RIF usually selects a terrain objective which, if threatened or occupied, will cause the enemy to react. The RIF mission may require:

1. *Attack to secure an objective; prepare to continue the attack.*
2. *Attack toward an objective; return to friendly positions, when enemy forces react in a specified way.*
3. *Sweep through enemy held territory and return to friendly positions.*

The reconnoitering force may secure its assigned objective and cause little or no enemy reaction, or the reconnoitering force may cause violent enemy reaction far short of the assigned objective.

6 Raid. A raid is an attack into enemy-held territory for a specific purpose and with no intention of gaining or holding terrain. The raiding force always withdraws after it accomplishes its mission. Raids may be conducted for a variety of purposes:

1. *Capture prisoners.*
2. *Capture or destroy specific enemy materiel.*
3. *Disrupt enemy plans.*
4. *Obtain information about enemy:*
 - *units*
 - *locations*
 - *dispositions*
 - *strength or weaknesses*
 - *methods of operation*

Security is vital because the raiding force is vulnerable to attack from all directions. Surprise and speed are of great importance to mission accomplishment and survival of the raiding force. Raids may be conducted dismounted, motorized, mechanized, or by airmobile or watermobile means. A battalion task force raid is normally conducted mounted. **For details of raids conducted dismounted or by any means other than with infantry carriers and tanks, see FM 7-10, The Rifle Company; 7-20, The Battalion (Infantry/Airborne/Air Assault/Ranger); 90-4, Air Mobile Operations.**

RAID OBJECTIVES

When a battalion task force receives a raid mission the purpose will be stated in some detail. This may be:

"Capture at least one commissioned officer"

(or)

"Capture one multiple rocket launcher"

(or)

"Draw the enemy's attention west of STRANGER CREEK."

In such cases the exact location of the raid may or may not be specified, and the task force commander may choose it himself. Other purposes include rather specific guidance as to where the raid is to be conducted. Examples of these are:

"Destroy the railroad bridge at EKRON"

(or)

"Break up the enemy troop concentration at coordinates XY 4272."

TIME OF RAID

As with objectives, the time may be specified, usually to coincide with other offensive operations, either to support them or to be supported by them. If the time is not specified, the task force commander should consider launching the operation so as to arrive in the objective area in the morning or evening twilight or during weather conditions causing low visibility. This will limit enemy observation and their ability to detect the raiding force, yet provide enough light for close combat.

ROUTES TO AND FROM THE OBJECTIVE AREA

The raiding force should move to and from the objective area by different routes. Protection afforded by terrain should be used as much as possible, especially in daylight. Unless the enemy situation is known in great detail, a battalion task force should provide an advance guard or advance security. A company team so employed will normally move using appropriate movement techniques until contact is made. During withdrawal from the objective area, the task force must keep its route open by using fire or

by temporarily occupying terrain which dominates the route.

RETURN TO FRIENDLY LINES

Forces in the area into which the raiding force will pass must be prepared to assist the passage and to provide direct fire support if enemy forces are pursuing. Coordination of primary and alternate passage points or lanes must be completed prior to the raid.

CONDUCT OF RAIDS

Two general types of raids are common. The first is one in which the force moves to, around or behind the objective or objective area as stealthily as possible so as to achieve surprise in its assault. Upon completion of the specified task, the raiding force moves rapidly back to an area under friendly control. This type of raid is well suited to missions requiring capture of prisoners or capture or destruction of specific enemy materiel. The second is one in which the force sweeps out of its positions, moves rapidly and violently through an enemy-held area, destroying whatever is in its path, and sweeps on to friendly lines. This type of raid is well suited to missions related to reconnaissance in force, those requiring destruction of a mobile force or facility in a general area, and those intended to disrupt enemy plans.

COMBAT SUPPORT

Field artillery support must be carefully planned so that the battalion task force has such support continuously available. This can usually be provided by field artillery units positioned behind friendly lines. In exceptional cases, some field artillery may move with the task force. If enemy air attack is possible while the force is beyond normal air defense protection range, then some air defense systems, in addition to Redeye, should be provided. Engineers will be required in the raiding force to prepare and detonate demolition charges if the mission is to destroy certain kinds of enemy facilities. They may also be required if engineering is necessary for movement of the force, especially in withdrawal.

COMBAT SERVICE SUPPORT

The task force commander should have sufficient means to accomplish the mission without resupply from outside the force. Raids will often be of short duration and the force can complete it with onboard fuel and ammunition. If there is a requirement for resupply of these, the commander must take them with the force. Addition of resupply vehicles complicates the overall task,

especially the withdrawal. Some maintenance capability should be present so that quick repairs can be made. Severely damaged vehicles must be destroyed and abandoned. *Casualties must not be left behind.* They will normally be evacuated with the task force main body. Under exceptional circumstances they may be evacuated by helicopter.

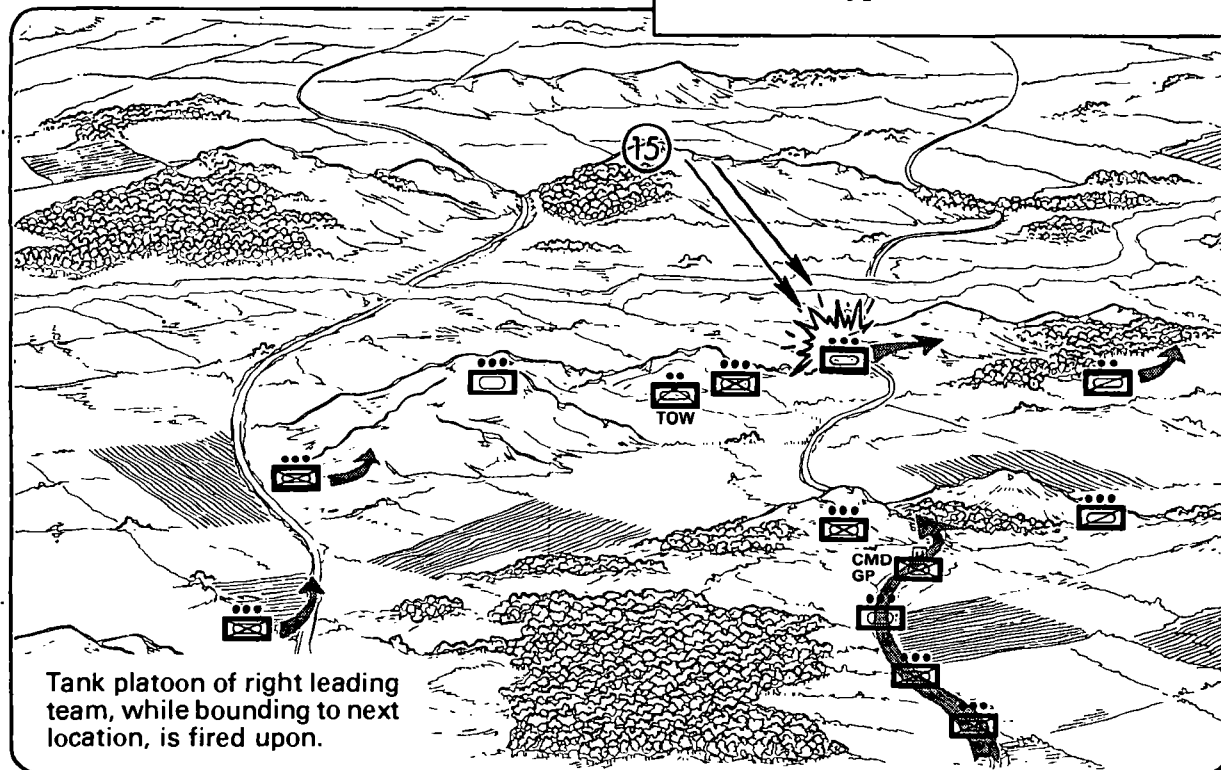
HOW TO CONDUCT A BYPASS

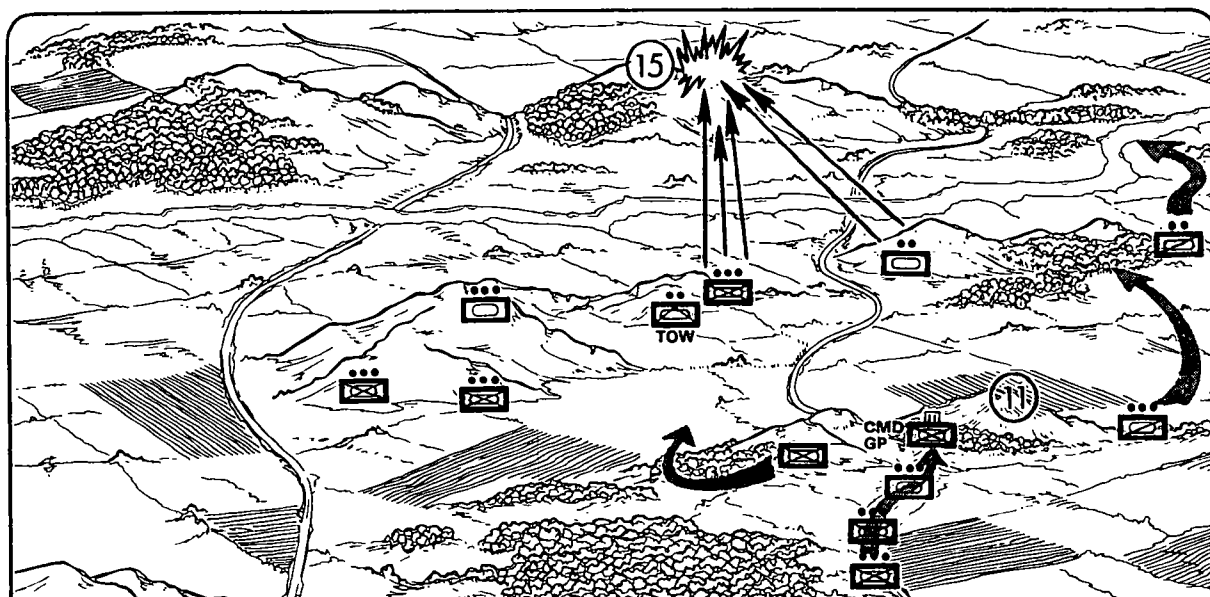
An enemy force so small or so lacking in mobility as to pose little or no threat may be bypassed. If the enemy force does represent a significant threat, it must be destroyed or fixed in position. Guidelines from the brigade commander, such as whether there are following forces and the speed required by the mission must be considered. Any bypassed enemy *must be reported* so that following forces will not be surprised.

While the battalion task force may bypass some enemy units, it will be necessary to contain others until they can be destroyed by

following forces or until they surrender. Because the attacker has the initiative, the force assigned the task of containing the enemy may be smaller than the force contained. They carry out their mission by using direct and indirect fire suppression, pinning down the enemy force so that it cannot maneuver against or fire effectively on the bypassing forces.

The following scenario illustrates one way the battalion task force can conduct a bypass.



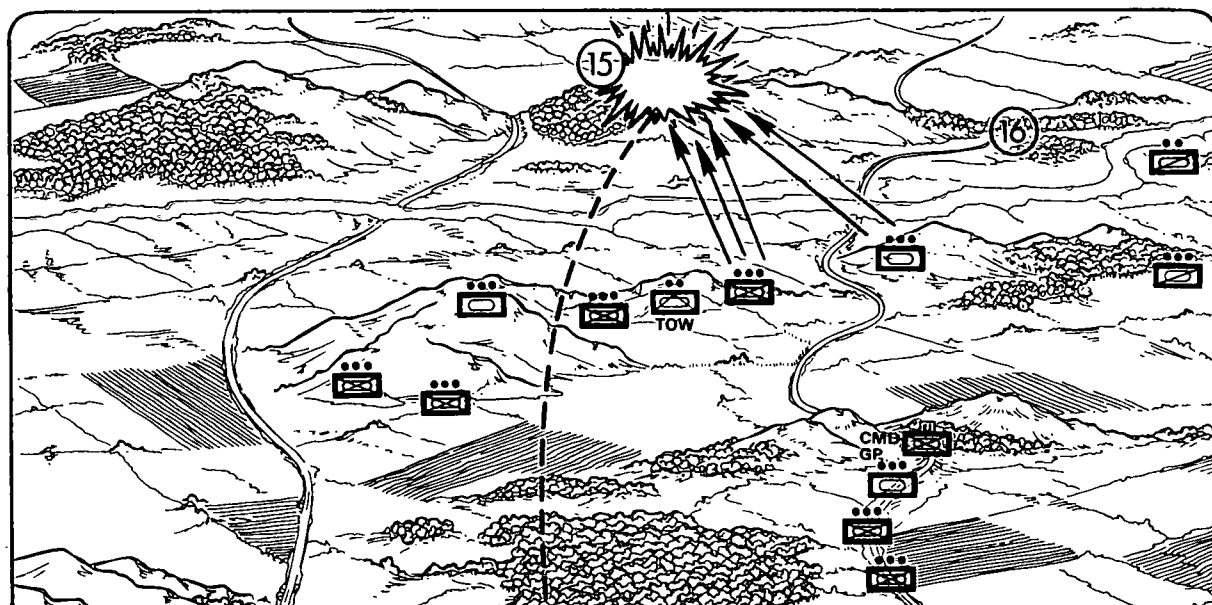


Tank platoon returns fire, moves quickly to cover, reports to company team commander, and attempts to determine size and composition of enemy. Company team commander directs

machinegun fire at enemy position, calls for fire from the FA battery, reports to battalion task force commander that he can assault across the stream with mechanized infantry.

Battalion task force (CP 11) reports contact to brigade.

Left company team commander monitors report. Prepares to fire or maneuver in support.



Tank platoon leader reports that the enemy force consists of about 15 infantry with SAGGER, RPG, and small arms. Mortar fire falls in

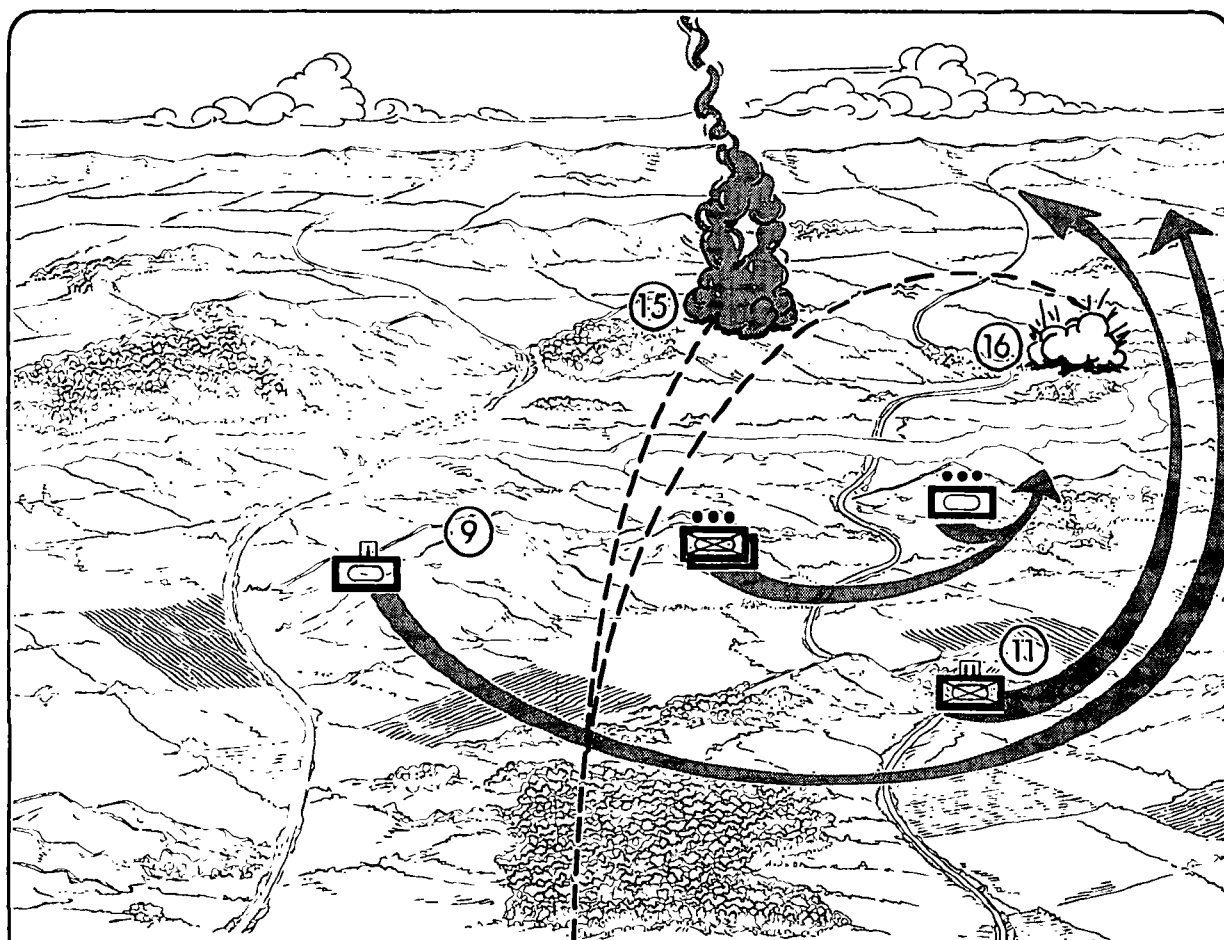
target area. Company team commander reports that SAGGER position is suppressed, and that he is ready to assault. Scout section

reports no contact and an easy fording site east of checkpoint 16.

Actions on contact at each level are taken immediately. The platoon returns fire, deploys, reports and attempts to develop the situation. The battalion task force commander has two mutually supporting company teams, either or both of which can assault the enemy position. He also receives

information that there is a route around the enemy, and based upon his own observation from his position well forward, realizes that he can bypass the enemy by routes which are covered most of the way. By ordering the company team in contact to continue to suppress the enemy, he further insures

non-interference with the bypass and moves the other teams rapidly. The combination of arms properly applied in rapid reaction to a relatively immobile enemy maintains forward momentum of the battalion task force.



Battalion task force commander decides to bypass to the right and continue his advance. He reports to brigade commander who agrees. He requests additional field artillery HE and smoke on the enemy position and possible positions at CP 16 and directs bypass to the right.

Company team in contact continues suppression until battalion task force has crossed stream east of CP 16, then becomes rear company team. Company team now in rear leads across the stream, then becomes left lead. Company team now on left follows on axis CP 9 to CP 11 to east of

CP 16, and becomes right lead.

One tank in the platoon first engaged by the enemy was hit. It is towed to the task force axis of advance in the vicinity of CP 11. Two wounded crewmen are evacuated by the team aidmen.

HOW TO ATTACK WHEN VISIBILITY IS LIMITED

The battalion task force will often move to contact and attack during night and other periods of limited visibility. Offensive operations during such periods have the advantage of striking a defender when the range of his observation and antiarmor weapons is reduced, and mutual support between positions is limited. Such operations will be conducted to:

- Achieve surprise
- Exploit earlier success
- Maintain momentum
- Rupture strong enemy defenses
- Minimize enemy mutual support.

■ **Operations At Night.** Modern devices for night vision provide the battalion task force with the capability of fighting at night much as in daylight, modified by reduced engagement ranges. White light artificial illumination with all its inaccuracies would be used only when night vision devices are not available in sufficient quantities, when ambient light levels are very low, or when the enemy has an advantage in night vision equipment. Flares have the disadvantage of being unable to discriminate between friend and foe, and may illuminate both. Changes in wind direction can result in exposure of the attack while defenders hide in the shadows. Searchlights and other active illumination means disclose their sources. The side which is equipped with passive devices has a distinct advantage over the side which is not. **Techniques for using artificial illumination are explained in FM 71-1, The Tank and Mechanized Infantry Company Team. Dismounted operations are explained in FM 7-10, The Rifle Company and FM 7-20, The Battalion (Infantry/Airborne/Air Assault/Ranger).**

At night, the attacker has increased difficulty with command and control, navigation, coordination and use of fires, and identification of friendly forces. ATGM have no night sight and will have a greatly reduced range unless illumination is used. The advantage given by illumination is

dependent on the extent to which visibility is limited and the availability of night vision devices to both the attacker and defender. During periods of darkness with high ambient light levels, passive night vision devices will allow the battle to be fought using daylight tactics; however, detection and engagement ranges, length of bounds, and the ability to move mounted on covered and concealed routes are reduced. When ambient light levels are very low, or when the defender has an advantage in night vision devices, illumination is used when favorable to the attacker.

■ **Operations in Periods of Limited Visibility.** Visibility limited by snow, rain, fog, or smoke presents special problems in both navigation and in maneuver of forces. Target acquisition is complicated by the difficulty of identifying friends and foes.

**PERSONAL DISCOMFORT IS BUT
ONE OF MANY
PROBLEMS CREATED BY
INCLEMENT WEATHER**

Human efficiency is reduced by the inability to see, and many tasks, simple in warm, dry weather, become difficult to perform in snow or rain. Encumbered by parkas, raincoat or poncho, mittens, or other special clothing, soldiers will need extra time to accomplish basic tasks and will tire more quickly. Radar efficiency is reduced in snow, rain, fog or smoke, and night vision devices are of little help.

The extra problems created by extremely limited visibility should not discourage planners, for each can be overcome. Remember too, the enemy has the same problems and more. He does not know when and where the attack will come and any factor which limits the range of weapons favors the attacker. Additionally, it will take the enemy longer to concentrate reinforcements against the attack. Limited visibility will often create the conditions necessary for a successful attack.

Suppression requirements are normally less because enemy direct fire weapons and indirect fire observers will already be restricted. Reconnaissance should be conducted by leaders at all levels, as in night operations. Plans should be detailed and coordinated, but above all else, must be SIMPLE.

■ **Movement to Contact.** Routes are chosen along terrain which facilitates navigation and control. At team level, movement techniques are determined not only by likelihood of enemy contact but also by the capability to overwatch even when contact is expected since bounding may only add confusion. Scouts will reconnoiter ahead of the task force when possible. The task force normally moves with a single team leading to facilitate security. Engineers often move with the lead team to allow rapid breaching of obstacles. At night, illumination fires are planned along the route and IR detection devices are employed throughout the task force to acquire enemy IR devices. Navigation is eased by vectoring units with GSR, by choosing routes that parallel identifiable terrain features, or by firing preplanned indirect fire along the route ahead.

■ **Attack.** There are three types of limited visibility attacks normally conducted by the battalion task force.

- ① Movement to a more favorable position (for a daylight attack).
- ② Attack by infiltration (by dismounted elements).
- ③ Attack of an occupied objective.

① MOVEMENT TO A MORE FAVORABLE POSITION

When attacking an enemy disposed in positions affording good mutual support with SAGGERS, the last 3000 meters of the approach may produce unacceptable vehicle losses on the task force. The commander may

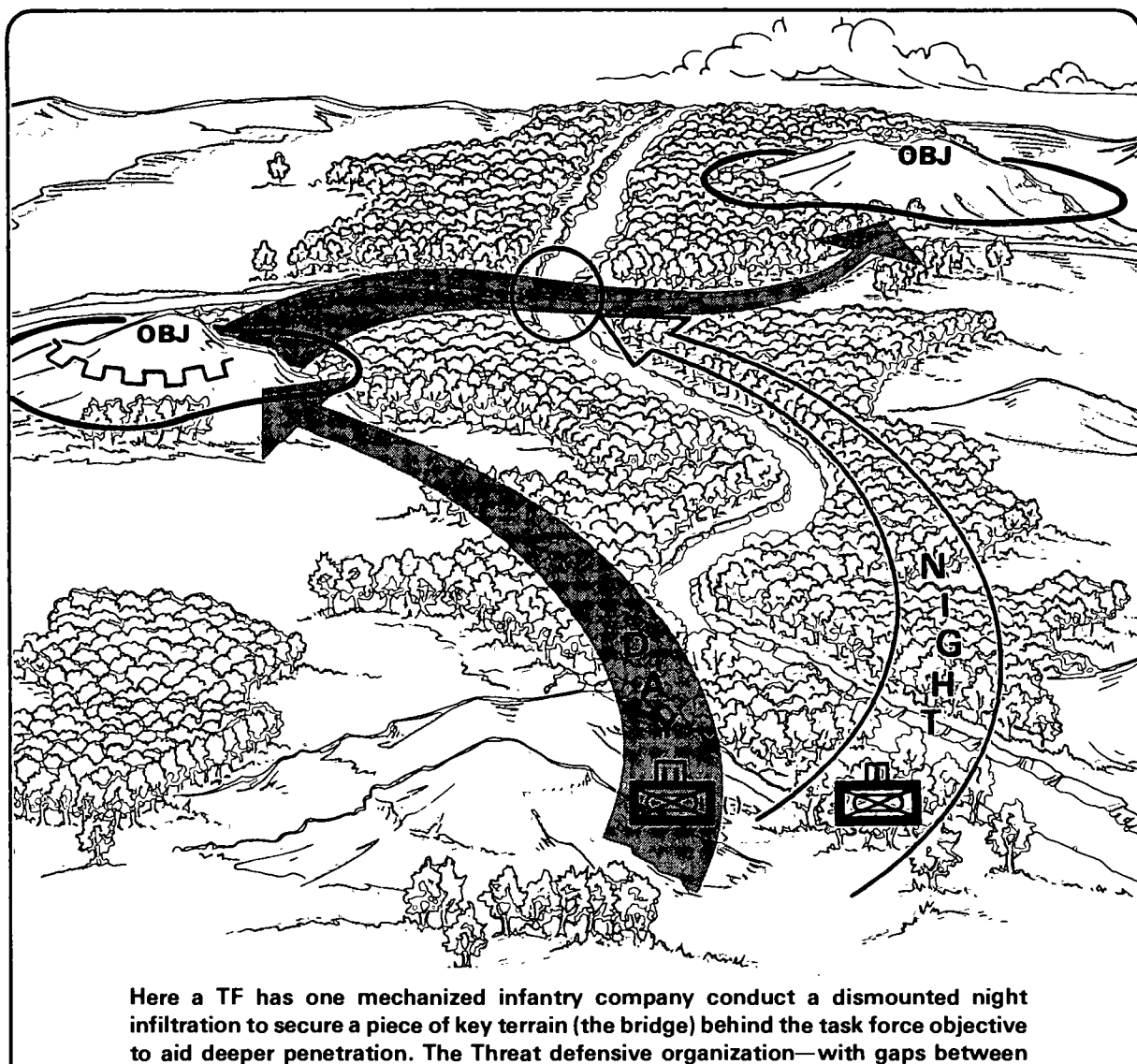
then decide to wait for darkness or the arrival of bad weather or fog. He devises a simple concept to maneuver his forces up to or between the positions of the enemy to put them on terrain which facilitates the destruction of the enemy after visibility improves. He chooses terrain objectives which he believes are void of enemy forces, and attempts to give each leader an opportunity to observe as much of the terrain as possible during good visibility. This short distance attack (4-5 km from the LD to the objectives) could often result in the enemy deciding that the integrity of his defense has been compromised, and force him to withdraw. In a sense this attack resembles an infiltration, except it is conducted mounted and the enemy undoubtedly will know he has been penetrated or outflanked. *Contact is avoided whenever possible.*

② ATTACK BY INFILTRATION

A dismounted infantry force using infiltration techniques moves around or between enemy positions to secure terrain key to the continued forward movement of the task force. Moving with stealth, the force moves so as to avoid contact. Ideally the objective will be void of enemy—if not, the dismounted element usually awaits the arrival of daylight to conduct its final assault. Since control of the final assault is difficult during severely limited visibility, it should not be conducted unless some significant advantages accrue to the attacker. The timing of the final assault should be coordinated with that of the mounted elements so that the enemy cannot concentrate combat power against one at a time. When conducting such an attack, plans must be made to have APCs and tanks rejoin the dismounted elements as early as possible.

③ ATTACK OF AN OCCUPIED OBJECTIVE

The manner in which a battalion task force attacks an objective during periods of limited visibility parallels techniques used during a daylight deliberate attack. Detailed



Here a TF has one mechanized infantry company conduct a dismounted night infiltration to secure a piece of key terrain (the bridge) behind the task force objective to aid deeper penetration. The Threat defensive organization—with gaps between companies and platoons—is open to movement of dismounted elements using infiltration. FM 7-10 describes the methods used by the dismounted company in detail.

knowledge of enemy dispositions on each position to be assaulted must be available to make this type attack successful. Often the maneuver force can get closer to an enemy position by capitalizing on the enemy's inability to acquire and engage long-range targets, and on the reduced mutual support between enemy positions. Although the fundamental of attacking enemy weaknesses holds true, attacks during periods of limited visibility can be used to rupture strong enemy

positions when no weaknesses can be found, or when the battalion task force is ordered to attack a strongpoint as part of a larger unit's plan.

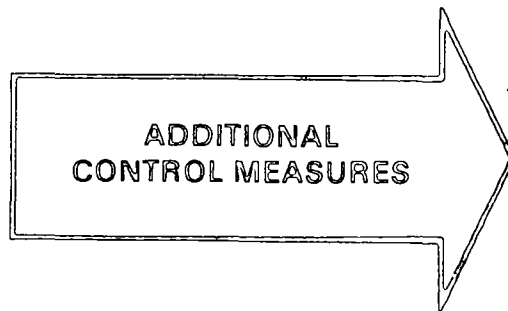
The assault may be conducted with tanks leading, followed by mounted or dismounted infantry; or by dismounted infantry supported by the fires of tanks and APCs. When a mounted attack is used, dismounted engineers and infantry may be used to breach

enemy obstacles ahead of the mounted elements. Illumination fires are planned and called when required—normally not until the final assaults are made. Smoke should be planned to cover movements, since the enemy will undoubtedly have night vision devices. Field artillery and mortar fires may be used to deceive the enemy and hide the sound of vehicle movement, as well as to suppress his positions. Deception measures can be effective in misleading the enemy as to the location and time of the attack. *The concept must be to move as close to the enemy's positions as possible without having to fight—then overwhelm him with carefully planned final assaults.*

When passive devices are ineffective, navigation and control can be simplified in various ways. Maneuver forces can guide on roads, streams, rail lines or other identifiable terrain feature. Ground surveillance radar can vector a friendly force as long as a line of sight and communications are maintained. A stabilized gun can be laid in the desired direction of movement and “followed,” the attacking units can guide on artillery or tracers fired on the objective, and, of course, compasses can be used.

Distances to be covered should be relatively shallow (1-3 km from LD to objective). Leaders at all levels should have the opportunity to observe the terrain during good visibility all the way to the objectives. Detailed plans are made all the way down to squad level. When final assaults to clear objectives are required, they should be planned to take place to facilitate control at least as high as platoon level—at first light or when fog allows about 100 meters visibility. If this is not possible, the commander should anticipate the need to use artificial illumination, and time all his final assaults so that the use by one element will not unnecessarily expose another. When an overwatch force is used, its weapon systems should move into position just prior to darkness to aid laying on targets, being cautious to avoid disclosing the commanders' plan.

☐ **Command & Control.** Command and control will be primarily by radio once the attack begins. Insofar as they can be seen, visual aids for recognition may assist in control of forces. Color panels, arm bands, luminous strips or patterns may help. Indirect fires will be difficult to adjust. If doubt exists as to relative locations of the proposed target and friendly troops, the fires should be initially placed beyond the target and “walked” onto the target. Objectives will usually be smaller than normal and must be sufficiently prominent to be found. Additional control measures which may be required, are shown.



☐ **Organization of Force.** Scouts may be used in front of the lead teams, along one flank of the task force, or for movement control. A combined arms reserve is normally retained and often moves closer behind the leading teams than in daylight operations. Fire and maneuver by company teams will be used less often than in daylight operations, and frontages will be narrower. Long-range weapons, such as TOW, should maneuver where they can be protected, yet readily available for employment when visibility improves.

☐ **Movement.** Technique of movement may depend more on conditions of visibility than on likelihood of enemy contact. Units and vehicles may move closer together to keep in sight, but should always avoid nose to tail closeness to preclude unnecessary casualties from area fire. Additionally, the conditions of limited visibility could unexpectedly change and leave the task force in a very unfavorable situation. As in any attack, covered and concealed routes are important.

PROBABLE LINE OF DEPLOYMENT

The probable line of deployment should be easily identifiable terrain feature (road, trail or wood line, etc.). This is the location from which the assault is conducted if enemy contact has not already been made. (Assigned by battalion task force.)

DIRECTION OF ATTACK

A highly restrictive control measure which a unit must follow and from which it does not deviate except to maneuver against enemy forces interfering with the advance. Because of its restrictive nature, a direction of attack should be used only if this degree of control is essential to the overall plan. (Assigned by battalion task force.)

OBJECTIVE RALLY POINT

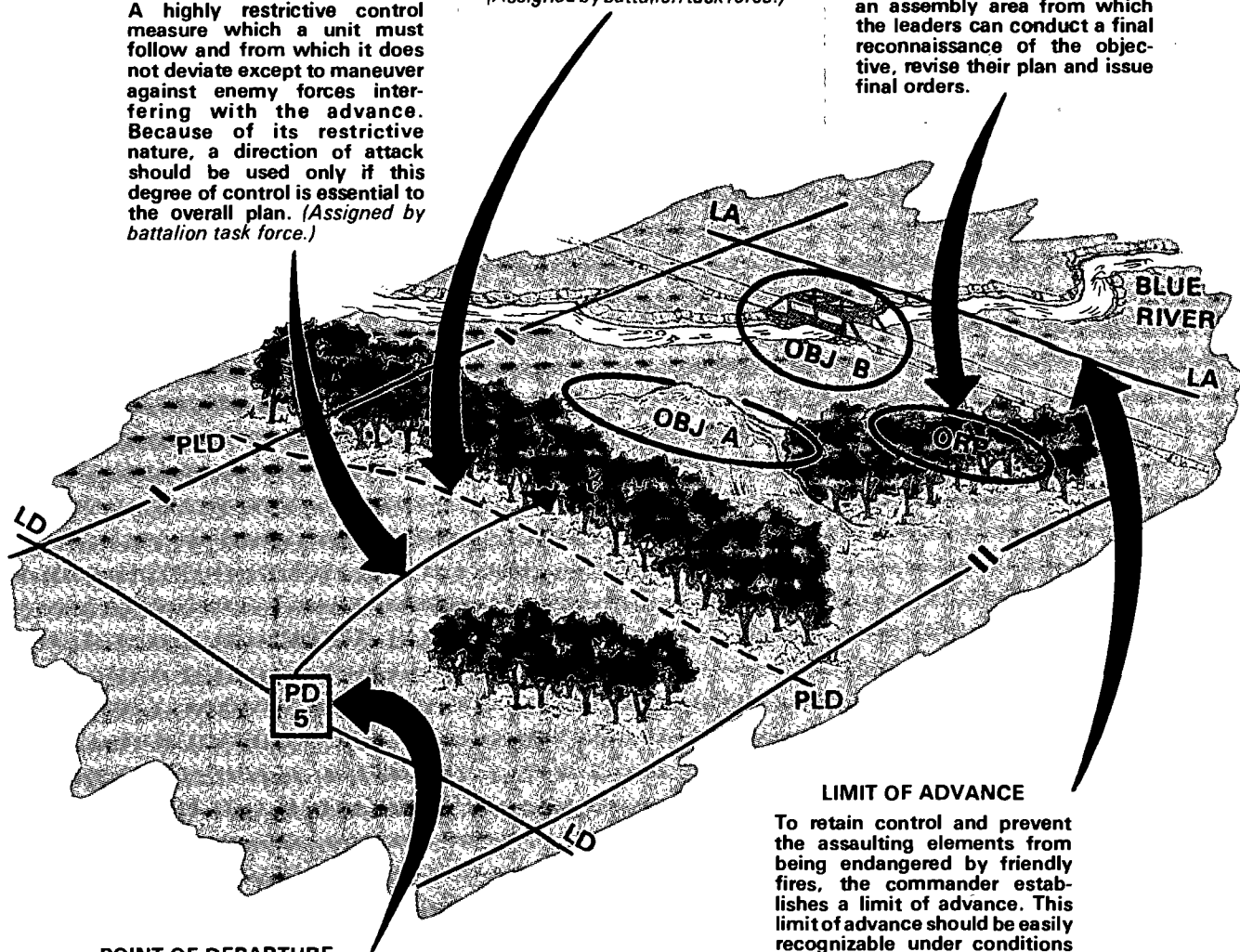
Selected by the commander of a dismounted infiltration. Used as an assembly area from which the leaders can conduct a final reconnaissance of the objective, revise their plan and issue final orders.

LIMIT OF ADVANCE

To retain control and prevent the assaulting elements from being endangered by friendly fires, the commander establishes a limit of advance. This limit of advance should be easily recognizable under conditions of reduced visibility. It should be far enough beyond and to the flanks of the objective to allow space for security elements to perform their mission. Fire support elements can engage enemy forces beyond this line without clearance from the supported unit. (*Assigned by battalion task force.*)

POINT OF DEPARTURE

This point is where the attacking platoons cross the line of departure. Platoons will normally cross traveling. The point of departure should be readily identifiable and, if necessary, guides should be posted to facilitate control. (Selected by company team.)



HOW ATTACK HELICOPTERS ARE USED IN OFFENSIVE OPERATIONS

Attack helicopter units are employed as integral parts of a combined arms force. They are maneuver units, especially suited for situations in which time is critical, when there are inadequate ground forces, or ground forces are restricted by terrain.

Using their speed, mobility, flexibility, and armor-defeating firepower, attack helicopter units can quickly respond to a threat, rapidly mass firepower, and exploit enemy weakness. Attack helicopter units are integrated into the tactical plan of the ground force commander, complementing his scheme of maneuver and enhancing the capabilities of both attack helicopter and ground combat forces.

ATTACK HELICOPTER UNITS PROVIDE ONE OF THE MOST VERSATILE, EFFICIENT AND EFFECTIVE WEAPON SYSTEMS FOR OFFENSIVE OPERATIONS

Regardless of the type of operation being conducted by higher HQ, attack helicopter units will normally be tasked to destroy armor and mechanized forces. They are attack oriented and are most effective when attacking a moving enemy force.

Attack helicopter units normally have considerably greater mobility than ground combat units. They can move rapidly to a critical point at a critical time and concentrate to strike the enemy where and when he is most vulnerable.

Attack helicopter units operate most efficiently when their unit integrity is maintained. The attack helicopter battalion reinforces ground units with companies in one or more locations, reconstituting rapidly for employment against another threat. By rotating platoons within companies, or companies within battalions, attack helicopter units can maintain continuous pressure on the enemy. Alternatively, given adequate terrain and lucrative targets, attack helicopter units can mass their entire firepower for a short period of time.

The fighting capability of attack helicopter units is limited by conditions of reduced visibility which inhibits the ability of aircraft to fly and of men and machines to acquire targets. When night vision devices are fully

developed, attack helicopter units' night fighting capabilities will increase significantly.

Attack helicopters combine their antiarmor fires with those of ground combat forces to:

- Provide immediate antiarmor firepower.
- Attack enemy positions in concert with ground forces.

■ Attack pockets of resistance bypassed by the main force.

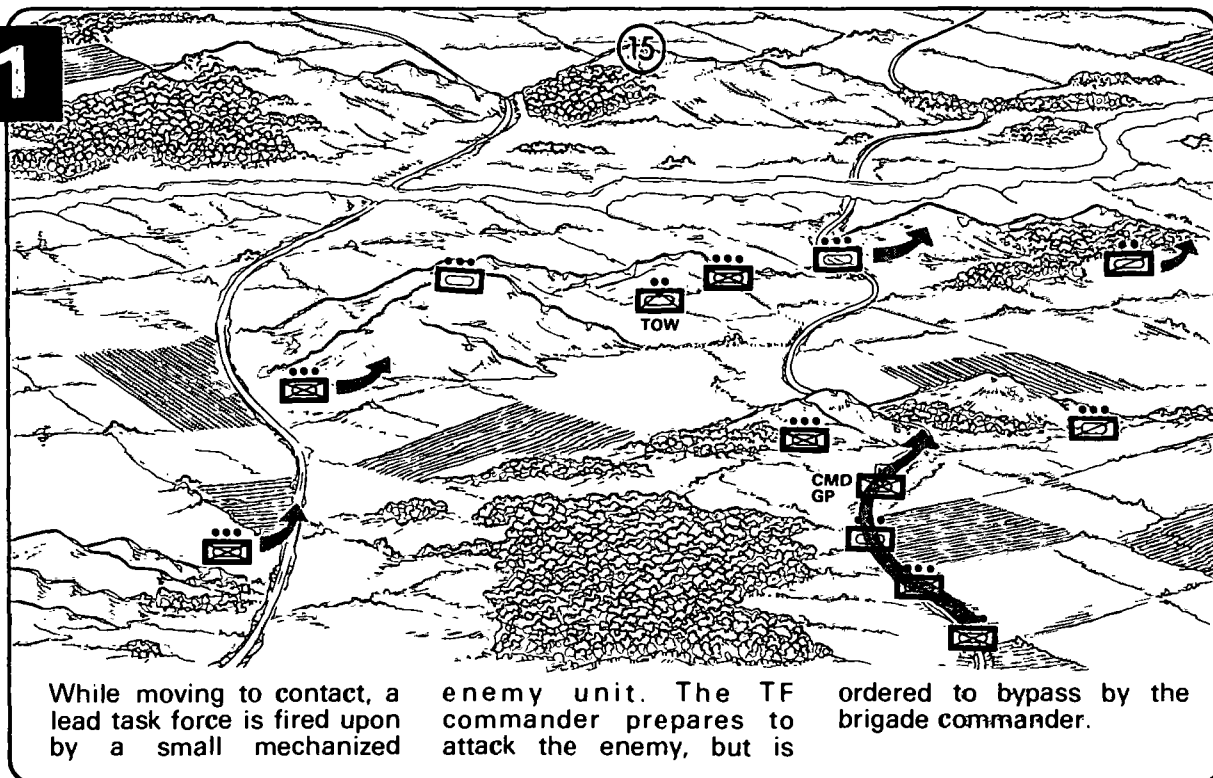
■ Attack withdrawing enemy forces or enemy reserve forces.

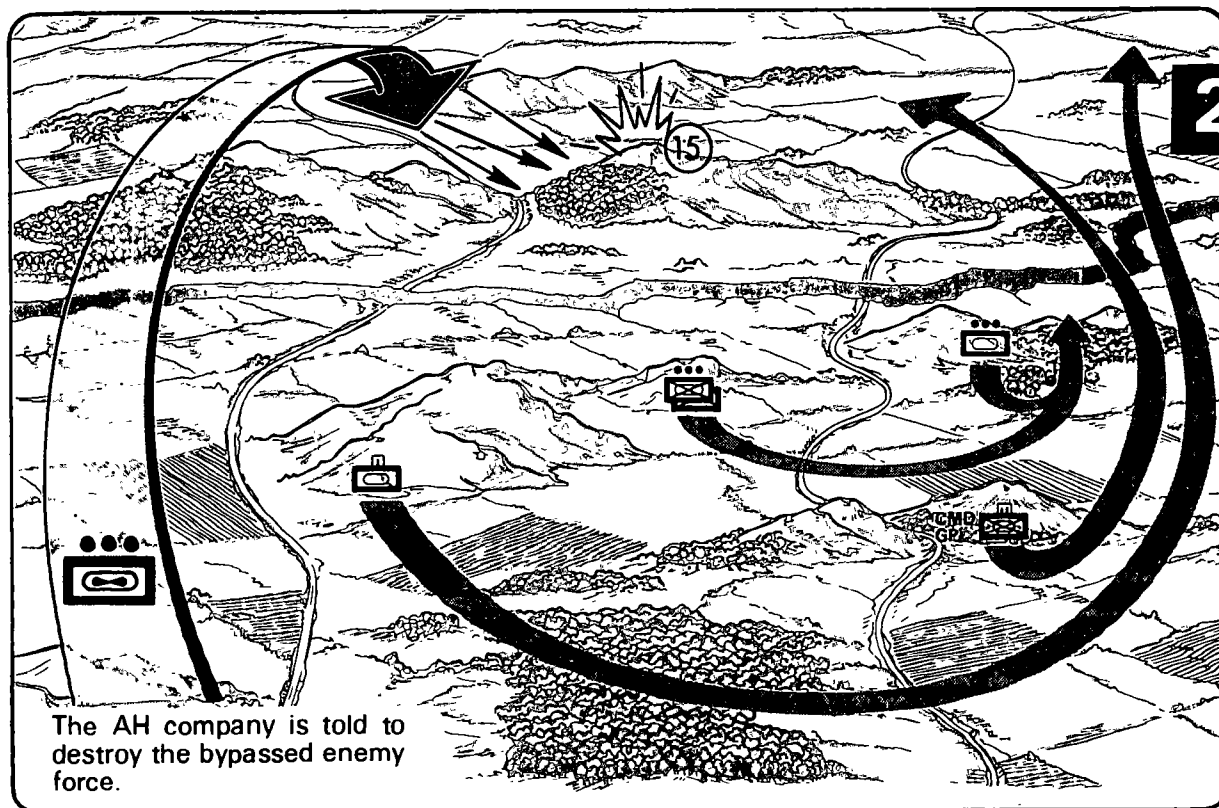
■ Engage enemy counterattacks.

The following scenario demonstrates situations in which attack helicopters might be used in offensive operations.

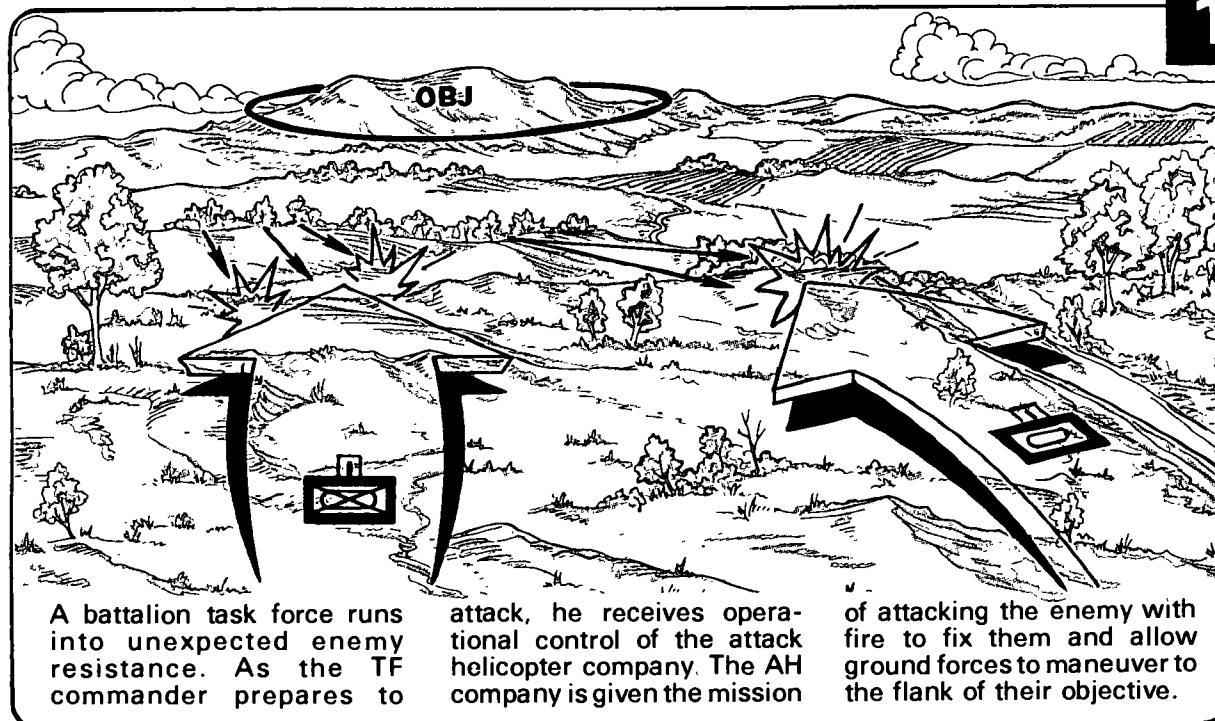
GENERAL SITUATION

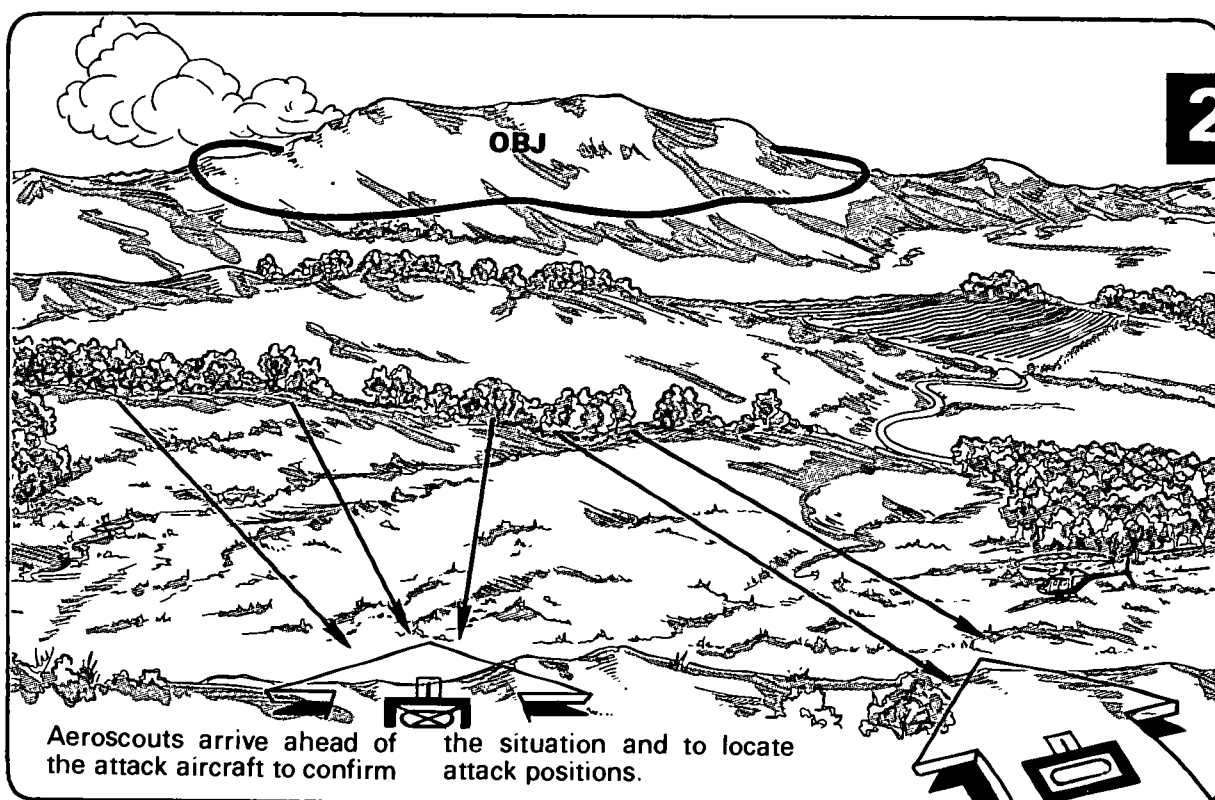
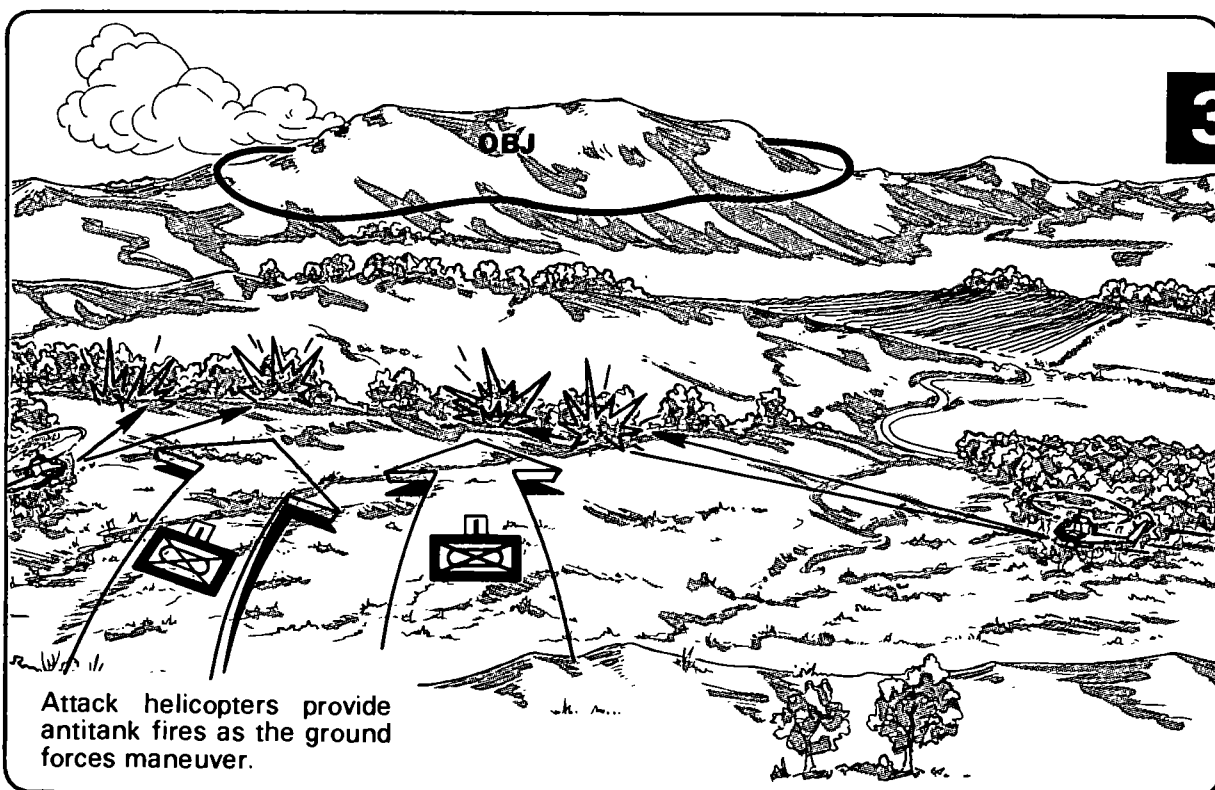
An attack helicopter company has been placed under operational control of an attacking brigade. The brigade commander has retained the AH company in a rear position to react to the needs of the brigade. As the brigade moves forward, the AH company will reposition by bounds to remain close to the lead ground forces. The AH company establishes liaison with each task force to provide for continuous coordination and rapid commitment of an attack helicopter team, platoon or the whole company.





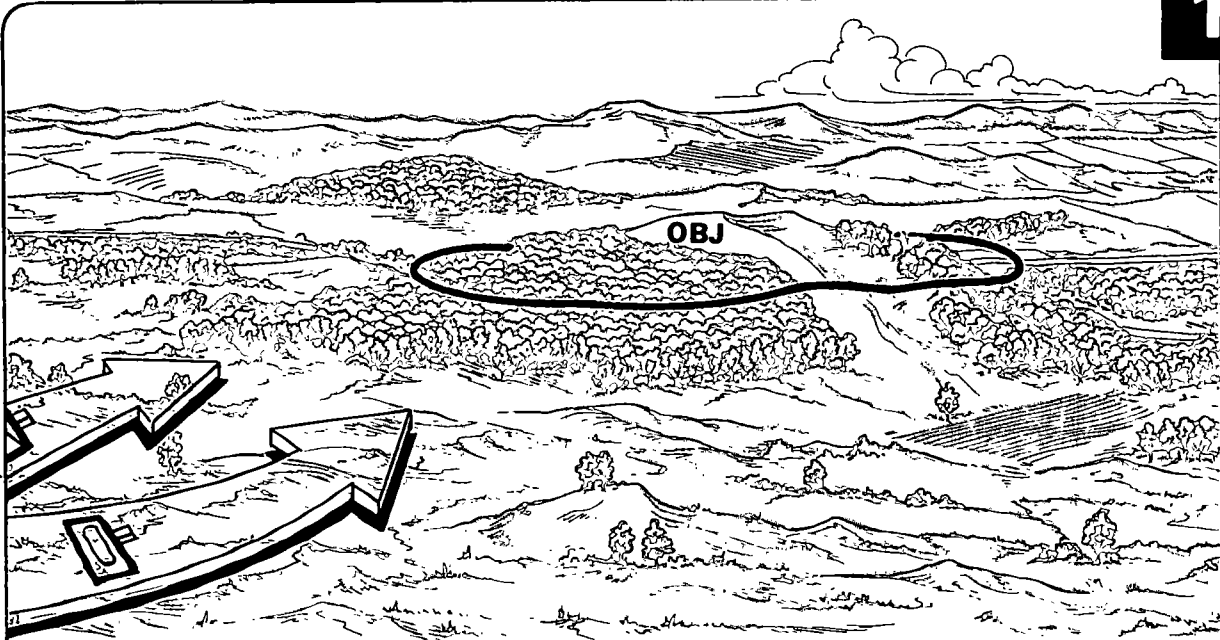
ATTACK ENEMY POSITIONS IN CONCERT WITH GROUND FORCES



2**3**

ATTACK WITHDRAWING ENEMY FORCES OR ENEMY RESERVE FORCES

1

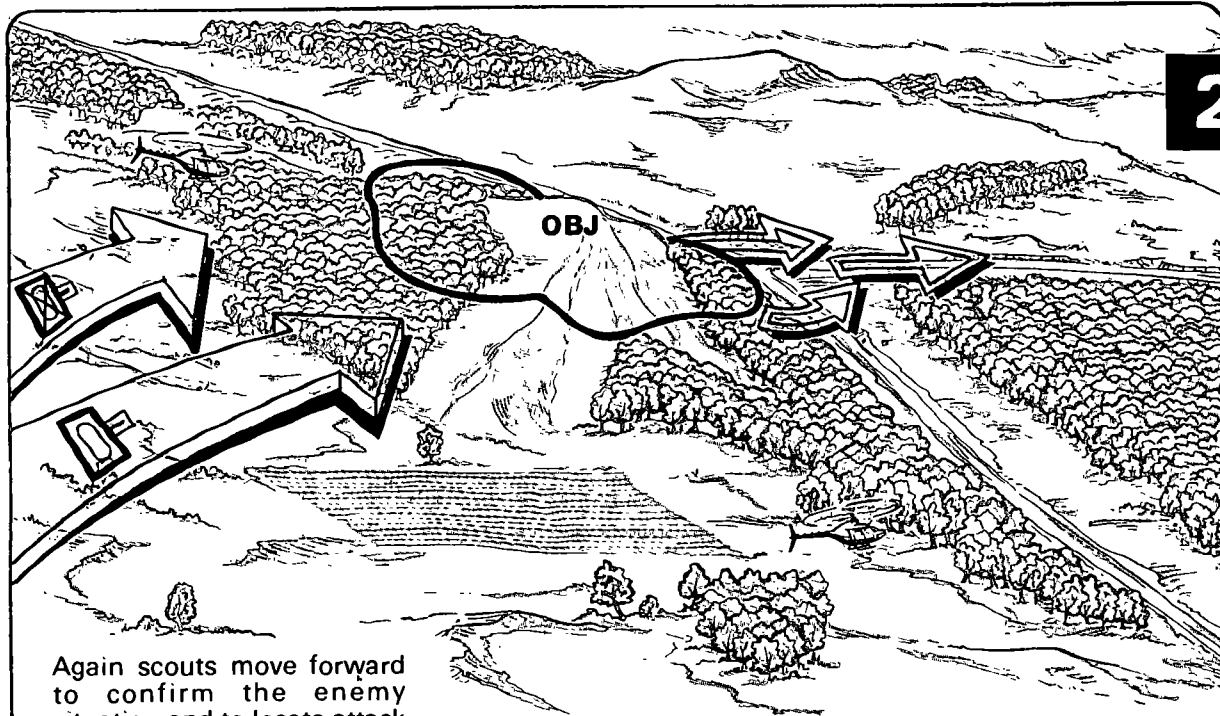


In this situation, enemy resistance is crumbling. As the task force approaches its

objective, the brigade commander orders the attack helicopter company to attack

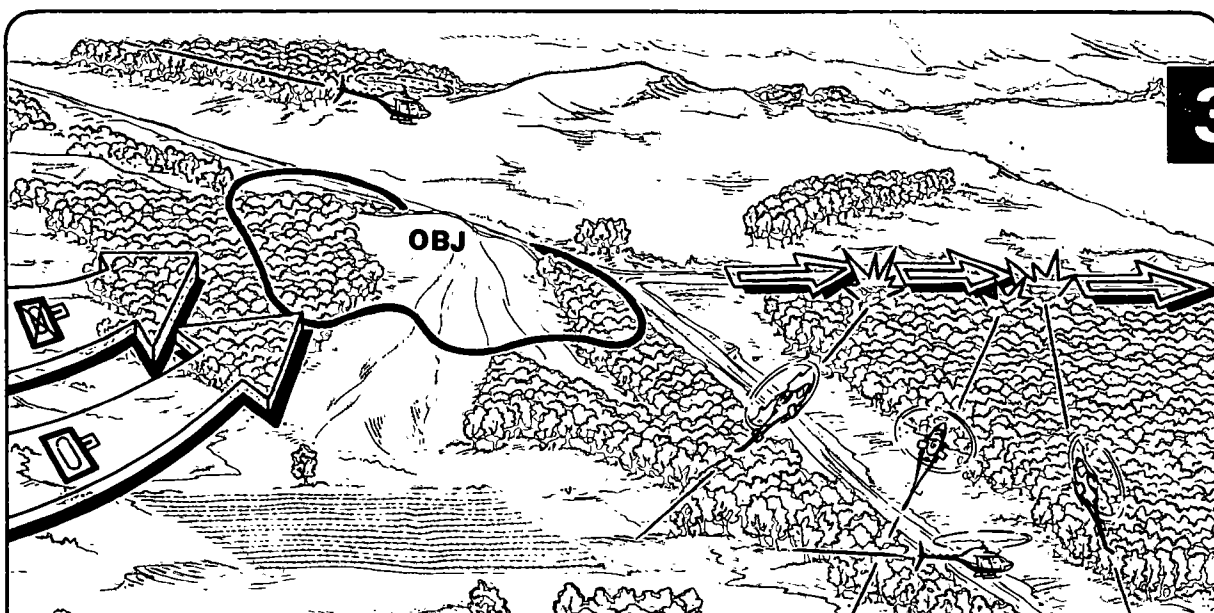
the enemy from the flank as he withdraws.

2



Again scouts move forward to confirm the enemy situation and to locate attack positions.

3



Attack helicopters engage the enemy from multiple positions. The AH company commander rotates platoons to maintain continuous pressure on the enemy.

Aeroscouts secure the immediate area around attack helicopters and reconnoiter alternate firing positions.

The same procedure can be used to engage enemy units trying to reinforce the objective area.

HOW TO BREACH OBSTACLES

The Threat plans to use obstacles to impede our advance and to canalize our forces. The task force commander cannot afford to lose the forward momentum of the offense and must be prepared to continue in spite of obstacles. The unit may bypass, "force through," or breach such obstacles.

If an obstacle is bypassed, its nature and location must be reported to brigade. Note that if a defender has taken time to construct an obstacle, he most likely is covering the bypass routes by fire. Conduct the bypass with attention to cover, concealment, and suppression.

"Forcing through" is attempted when no other way to cross the obstacle is possible. Minefields, for example, may be forced, but expect considerable loss to vehicles and soldiers. The mission is the overriding factor.

Unfordable streams and concrete or steel obstacles cannot be "forced through." If they cannot be bypassed, they must be breached.

The fundamentals of breaching operations are:

- Suppress enemy weapons using all available fires.
- Obscure the obstacle with smoke over a large area to prevent enemy observation.
- Secure the far side of the obstacle.
- Reduce the obstacle.

A *hasty breach* is done quickly, with little reconnaissance or planning. Company teams should be able to perform a hasty breach without engineer support. A *deliberate breach* is preferred if there is time for reconnaissance and planning for special breaching devices. Engineer support for the company teams is necessary.

HOW TO COMBAT SPECIFIC OBSTACLES

The momentum of the offense must be returned. Obstacles must not impede movement for unusually long periods of time.

■ **Minefields** will differ in layout and composition, depending on availability of mines and nature of avenues of approach. Whenever possible, mines are detonated in place. Breaching equipment includes CEV (combat engineer vehicle), explosives (including hand-placed), rocket-projected line charges, direct-fire weapons and, in the future, SLUFAE (surface launched fuel-air explosives). When the battalion task force must breach a minefield to continue the advance, it must often use mechanized infantry to make the initial breach. As a general rule, tanks support by fire from a position to the flanks of the actual point of entry into the minefield. Infantry platoons are designated to conduct probing actions and open lanes through the minefield. Each lane normally requires one infantry platoon for clearance. Indirect and direct fire weapons suppress and smoke the far side of the obstacle.

For additional information about how mechanized infantry company teams conduct breaching operations and how tank company teams employ rocket fuel air explosives, refer to Chapter 4, FM 71-1, The Tank and Mechanized Infantry Company Team.

■ **Abatis, Stumps, Posts, and other Log Obstacles** can be overcome using the same fundamentals—suppress enemy weapons, secure the far side, clear a lane. Demolitions reduce all log obstacles quickly. If demolitions are not available, use saws and axes to cut through. Use vehicles to pull logs out of the lane.

■ **Cribs and Hurdles** reinforced by boobytraps and other antihandling devices

may hold up armor vehicles long enough to offer the enemy a good target. Boobytraps or other antihandling devices must be neutralized if the obstacle is to be cleared.

■ **Tank Ditches and Craters** are usually reinforced with wire and mines. A dozer tank or CEV can be used to push down the sides of ditches or to fill in craters. If gaps are 60 feet or less, AVLBs can be used. Engineers can use explosives to cave in the sides of ditches.

■ **Wire Entanglements** alone are not a significant obstacle to mounted forces. However, wire can be a nuisance by damaging suspension systems or halting vehicles long enough for soldiers to cut it away. Bangalore torpedoes and explosives are used to clear wire. CEV demolition guns and tank and indirect fire will reduce the obstacle.

■ **Water Obstacles** can slow the advance. Unless it is involved in a large scale river crossing operation, the battalion task force cannot expect much engineer bridging support. It will most often perform hasty crossings, using AVLBs where possible.

When leading elements report a water obstacle, the following information is obtained if possible:

- Obstacle Depth.
- Stream Velocity.
- Possible Entry and Exit Points.
- Enemy Situation.

When crossing water obstacles, infantry secures the far shore, tanks support by fire, and field artillery and mortars suppress. Engineers can improve the entrance banks initially and then clear obstacles on the far shore.

For additional information on company team operations at water obstacles, the reader should refer to Appendix M, FM 71-1, The Tank and Mechanized Infantry Company Team.

SUMMARY

The winner must attack. The battle is not won until the enemy is destroyed and his will to continue the fight has been crumbled. To win, the task force commander must understand the enemy's pattern of battle, see the battlefield, use weapon systems to best advantage, concentrate overwhelming combat power, and destroy the enemy.

Regardless of the name given the larger operation (movement to contact, hasty or deliberate attack, reconnaissance-in-force, exploitation or pursuit), the task force is usually attacking.
--

The attacking force seeks contact, develops the situation, penetrates or envelops the enemy, and continues the mission of defeating the enemy.

All advantages of the combined arms team are brought to bear.
--

Organization of the task force maximizes capabilities and minimizes vulnerabilities.

The task force must use the benefits of cover, concealment, suppression, and teamwork.



CHAPTER 5

DEFENSIVE OPERATIONS

OVERVIEW

THE US ARMY will most likely conduct defensive operations at the beginning of the next war. Defeating enemy attacks will be of paramount importance until we can concentrate the force necessary for offensive victory. The defender has many inherent advantages and the task force commander must put each one to best use. He must understand the concept of the defense and apply the fundamentals which will make the defense successful.

An understanding of how the enemy attacks will aid him in planning and organizing the defense. Since it is also likely that the defender will be outnumbered in the

larger scope, he must conduct an active defense, blunting the attack at one place, then concentrating combat power at another place to thwart the enemy's advance.

CONTENTS

	PAGE		
OVERVIEW	5-1	How to Allocate Weapon Systems	5-27
Concept of the Defense	5-2	How to Concentrate Forces	5-27
Fundamentals of the Defense	5-4	How to Organize a Strongpoint	5-28
HOW THE ENEMY ATTACKS	5-5	Reinforcing the Terrain	5-30
Meeting Engagement	5-5	Command and Control	5-32
The Deliberate Attack or Breakthrough	5-10	Limited Visibility	5-32
The Pursuit	5-13	DELAY OPERATIONS	5-34
The Night Attack	5-14	Concept of the Delay	5-35
Assault Tactics	5-15	When to Delay	5-36
HOW TO PLAN AND ORGANIZE THE		DISENGAGING A BATTALION TASK	
DEFENSE	5-16	FORCE	5-36
Covering Force Area (CFA)	5-16	Disengaging Under Enemy Pressure	5-37
Main Battle Area (MBA)	5-18	Disengaging When Not Under Enemy	
Rear Area	5-19	Pressure	5-38
Battalion Task Force Missions	5-19	Combat Support and Combat Service	
Company Team Missions	5-22	Support	5-39
How to Employ Weapon Systems in		COUNTERATTACK	5-39
the Defense	5-25	CONDUCT OF DEFENSIVE OPERATIONS ..	5-39
		SUMMARY	5-69

Concept of the Defense. The battalion task force defends alone or as part of a larger force. The defender seeks to defeat an enemy attack, and does so by destroying substantial portions of the attacking force while attempting to minimize losses to the defender. Specific purposes and immediate reasons for defending are to:

- Destroy the enemy.
- Wear down enemy forces prior to attacking them.
- Force the enemy to mass so that fires can be concentrated against him.
- Retain or deny terrain, facilities, installations, and activities, or preserve forces essential to the mission.
- Gain time for other activities elsewhere.

The overall system of defense is *ACTIVE*, with commanders economizing forces in less threatened areas to concentrate against main enemy thrusts. Such concentration of force requires that the task force use its mobility and firepower to best advantage.

When fighting outnumbered, it is vital to accomplish the defensive mission while denying the enemy the opportunity to critically damage the defending force. If the defender is fixed by the enemy and subsequently destroyed, or if the defending force is so degraded by successive losses as to become ineffective, the battle will be lost.

The vast numbers of enemy forces which may be committed in succession against our defense require us to defeat each echelon and be ready to oppose the next with an effective force, over and over again. Active defense, intelligently planned and professionally conducted, provides a way to accomplish this.

In an active defense, battalion task forces and subordinate company teams may engage the enemy from battle positions and, when appropriate, move to other battle positions, or may establish strongpoints around which the battle can pivot.

In determining how he will defend, the task force commander must recognize all potential enemy avenues of approach into and through

**ACTIVE DEFENSE CAN DEFEAT
REPEATED ECHELONS OF
THE ATTACKER**

the defensive sector. He must plan indirect and direct fires in as many places along these avenues as time permits so as to wear down and destroy the advancing enemy to the fullest. He must plan the maneuver of company teams from battle position to battle position so that when the battle commences, *forces can be concentrated quickly at a decisive point and as quickly be redirected to another.*

Commanders must use every advantage offered by the terrain. Natural obstacles must be reinforced, extended, and covered by fire. Approaches must be examined to find areas where enemy formations can be subjected to a high volume of lethal fires. Development of obstacles which tend to force an attacking enemy away from cover and concealment and into open ground must be a high priority. Battle positions must be selected which provide long-range unobstructed fields of fire into places where the enemy will be. If necessary, fields of fire must be created. At the same time, battle positions must provide cover and concealment, or nearby concealment from the fires of following enemy echelons. They must have adequate routes in and out so that units can occupy them quickly without unnecessary exposure, and can vacate them in the same way when they have completed an engagement.

It is highly desirable to choose positions from which long-range fire can be delivered at ranges optimum for the weapons which will be used there. The goal is to permit TOW and missile firing tanks to engage enemy forces at 3000 meters, conventional gun tanks to engage in the 1500-2500 meter range, and Dragon to engage as near as possible to their maximum effective range.

Capitalizing on their range advantage over the enemy, TOW and missile firing tanks initially engage the enemy with frontal fires as early as possible. As the enemy approaches closer, our weapons move to the relative protection of terrain-masked positions to deliver flanking fires. *Weapons will engage an enemy from one set of firing positions, then move to alternate ones or to new battle positions as the enemy fires and*

maneuvers. Using surprise fire and first-shot advantage, each weapon in range must hit one or two vehicles in each engagement, and relocate before effective return fire can fix it in position or destroy it. With field artillery, mortars, and close air support providing suppression and additional destruction, a battalion task force can destroy, contain, or drive out a succession of enemy attacks.

While this technique of defense is designed primarily to defeat mounted attacks and enemy formations attempting to bypass obstacles and other areas, it can be adapted to dismounted enemy attacks as well. If enemy troops dismount, one of two things happens. Either the enemy assault must slow to the pace of the dismounted troops, thereby increasing the time his vehicles can be engaged by our weapons; or enemy tanks will become separated from their infantry, again increasing their vulnerability. In either case, the dismounted troops are more vulnerable to field artillery, mortar, and direct fires. As infantrymen are eliminated from a formation, the enemy tanks become more vulnerable to surprise fires from all antiarmor weapons.

When there are terrain features in the sector or area of operations which are critical to the defense (or which must be denied to the enemy), the defender must organize strongpoints and hold them against all assaults. Once such terrain features are identified or specified in the mission, the battalion task force commander prepares his defense accordingly. As before, enemy avenues of approach must be identified. Obstacles must be improved, and manmade obstacles may be constructed. Extensive use may be made of mines, barbed wire, craters, ditches, abatis, and any other hindrance to both mounted and dismounted enemy attack. All available surveillance and detection devices are employed to detect enemy movement at long range, in approaches not observable by normal means, and in periods of limited visibility. Field artillery and mortar fires, including final protective fires, are carefully planned. If possible, these must be registered. Antitank and machinegun fires

are integrated into the defense. The position must be fortified as extensively as time and materials permit. All weapons must be dug in with overhead cover in both primary and alternate positions. Communications trenches and wire lines can be installed to permit control of forces, resupply, and some movement of weapons under fire. Fields of fire are vital for both antiarmor weapons and for machineguns and small arms. Direct fires must be possible from multiple, mutually supporting locations. An approaching enemy must be subjected to an increasingly lethal volume of fire, with shorter range weapons joining the fight as the enemy closes the range.

The battalion task force may be given the mission to hold enemy forces forward of a line or terrain feature for a specified amount of time, or the mission may be allowed to slow the enemy as much as possible without risking destruction of the task force. In either case, the battalion task force is required to gain time for some other action to take place in some other area. In a "high risk" situation where times and lines are specified, the battalion must present sufficient resistance to insure that enemy forces do not progress faster than the stated time restrictions. This may require that company teams fight from each position as they would fight from strongpoints, even risking decisive engagement to accomplish the specified time. The missions given to company teams in such cases may be *defend*, even though the task force mission is delay. In a "low risk" situation, the battalion task force requires its company teams to destroy as much of the enemy as possible, then maneuvers them to rearward positions before they can be fixed by enemy fire.

Fundamentals of the Defense. The concept requires the execution of certain fundamentals to insure a successful defense.

☐ **Understand the enemy**

The defender must be thoroughly familiar with the capabilities and limitations of enemy weapons and equipment. He should know how enemy units are organized and deployed, and understand formations, echelonment and tactics of enemy units.

☐ **See the battlefield**

Prior to the battle, the defending commander must organize to defeat all types of attack from all feasible directions. He must then conduct aggressive operations to gain contact to learn where the enemy is, how he is organized, which way he is moving, and in what strength. As the battle unfolds, he must have a continuous flow of information on which to base decisions. He also must have effective OPSEC to deny the enemy similar information about his task force as he maneuvers to counter each enemy thrust.

☐ **Use the defender's advantages**

They are numerous and permit a numerically inferior force to defeat a much larger attacker. The defender can become intimately familiar with the actual terrain prior to battle; the attacker cannot. The defender can prepare the ground in advance, building obstacles, firing positions, and routes between battle positions. The attacker can only guess at these. The defender can fight from cover while the attacker is in the open. The defender can shoot first from stationary platforms or positions, thus forcing the attacker to react and fire while moving. The defender can shift forces from prepared position to prepared position swiftly to concentrate for successive engagements. The attacker must feel his way over the terrain, seeing each new compartment for the first time. The defender can plan communications, control measures, fires, and logistical support in advance to fit any predictable situation. The attacker must adhere to a predetermined course of action and risk being outmaneuvered, or he must alter his plans as the battle develops and risk an uncoordinated effort.

☐ **Concentrate at critical times and places**

If the commander understands the enemy he faces, can see the battlefield and the developing battle better than the enemy commander does, and if he uses the defender's advantages, he will be able to shift forces and fires quickly. He must concentrate at critical points so that the locally engaged combat power ratio is no worse than 1:3, defeat the enemy attack, and shift again to

A Threat division will normally use at least two or more main routes of advance. On each route, reconnaissance elements from either the divisional reconnaissance battalion or the regimental reconnaissance company usually precede the advance guard.

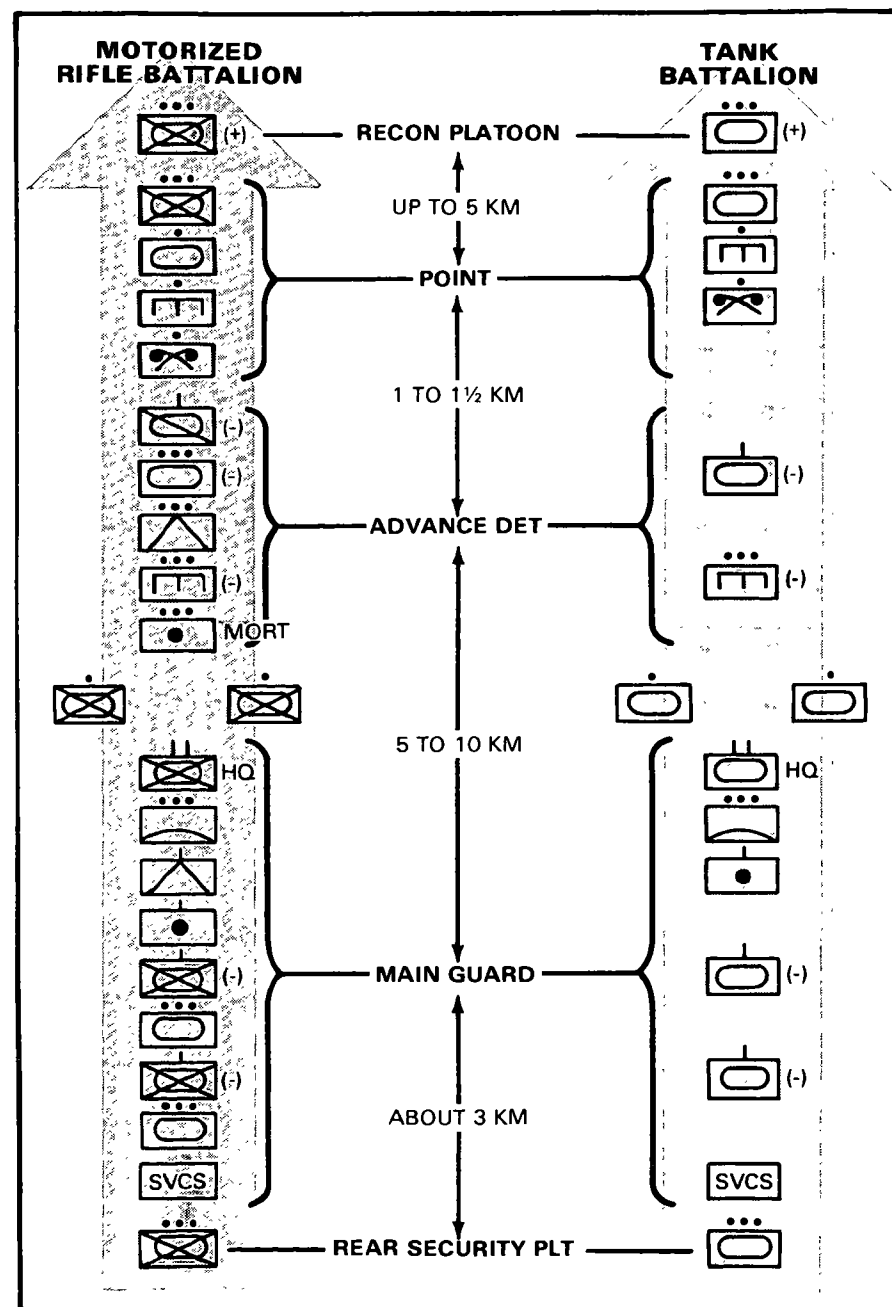
Each forward regiment of the division organizes an advance guard normally

constituting a reinforced battalion. The role of the advance guard is to develop the situation and overcome light opposition. If unable to overcome or bypass opposition, the advance guard will cover the deployment of the main body for an attack. Depicted here is a typical advance guard as formed by the motorized rifle and tank battalions.

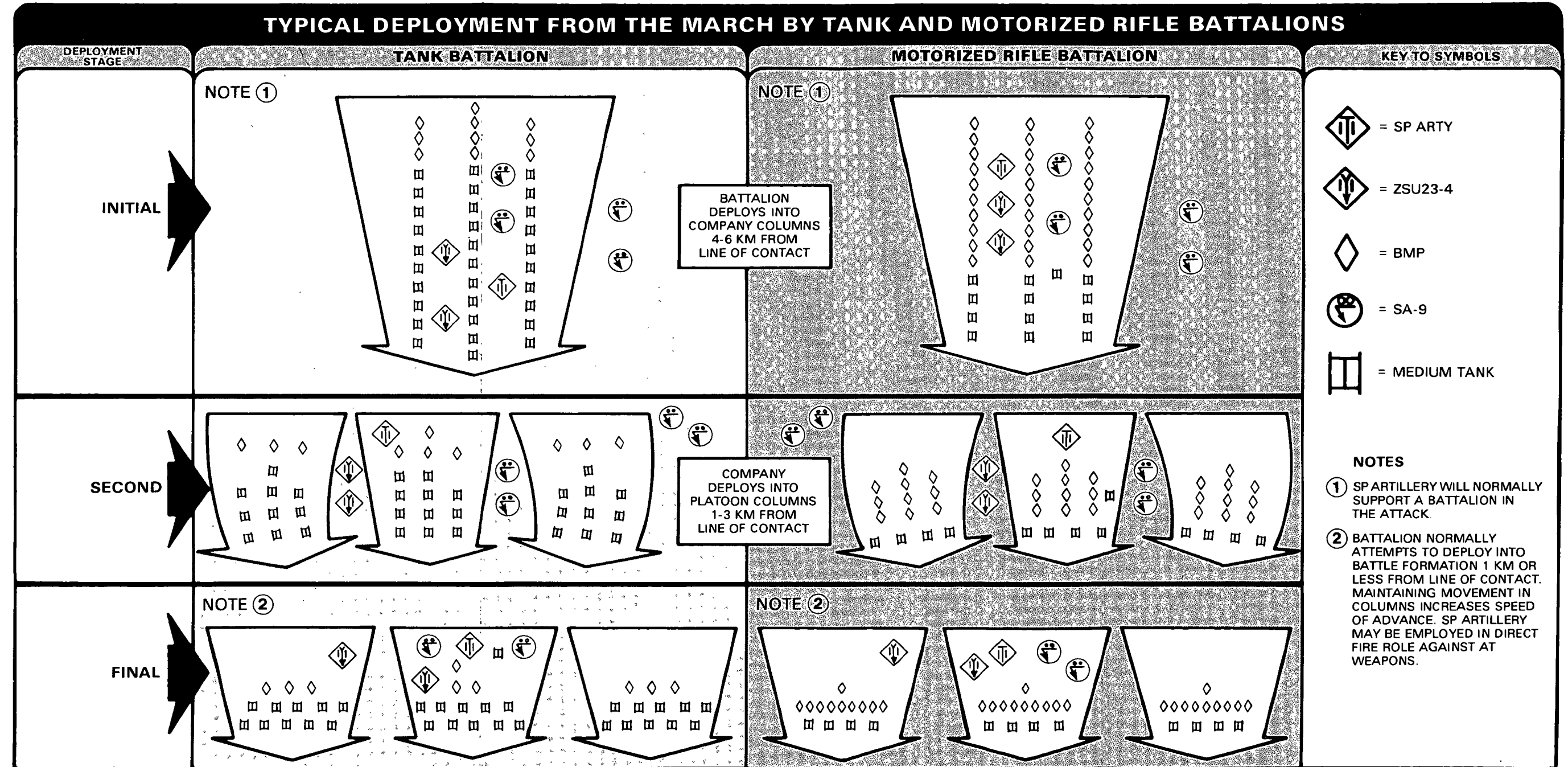
FOLD OUT FOR DIAGRAM OF
"ADVANCE TO CONTACT"

**TANK AND
MOTORIZED RIFLE
BATTALIONS IN
THE ADVANCE
GUARD ROLE**

NOTE: Artillery under regimental control and the regimental antitank reserve (motorized rifle regiment only) may also move within the zone shown, although these have not been included in the schematic.

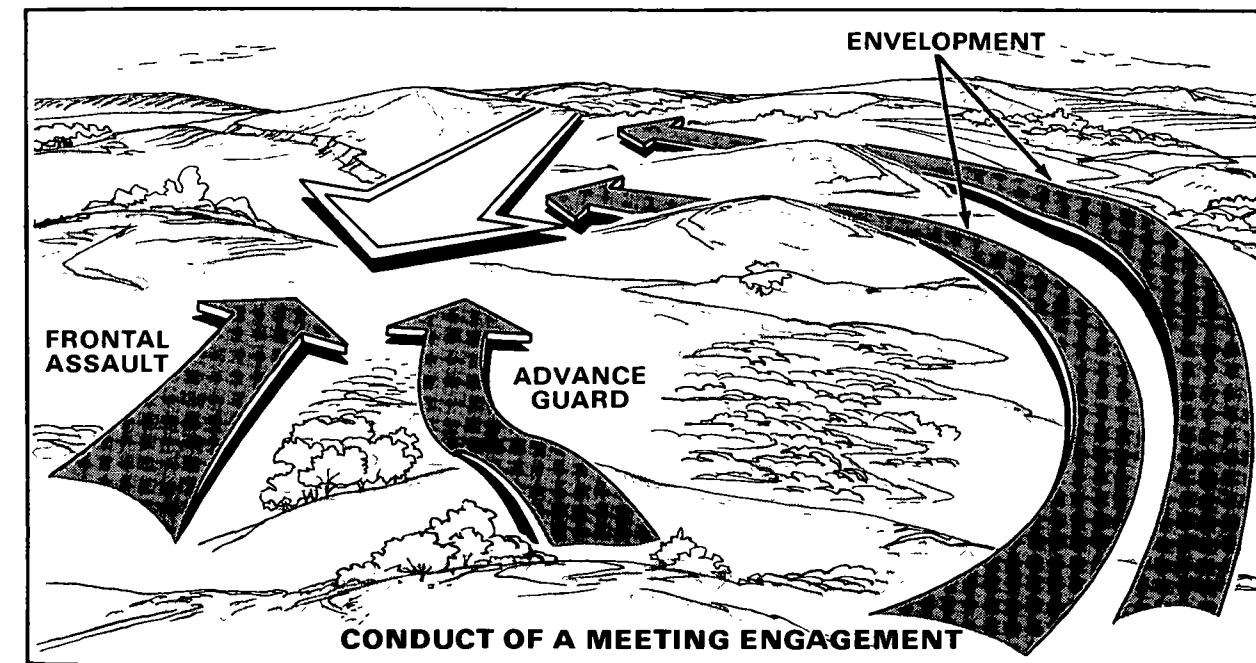


Threat forces in the advance to contact normally move in column formation to support their high speed advance doctrine. Deployment into various battle formations is conducted by successive advancing elements only to the extent necessary to overcome enemy defensive positions.



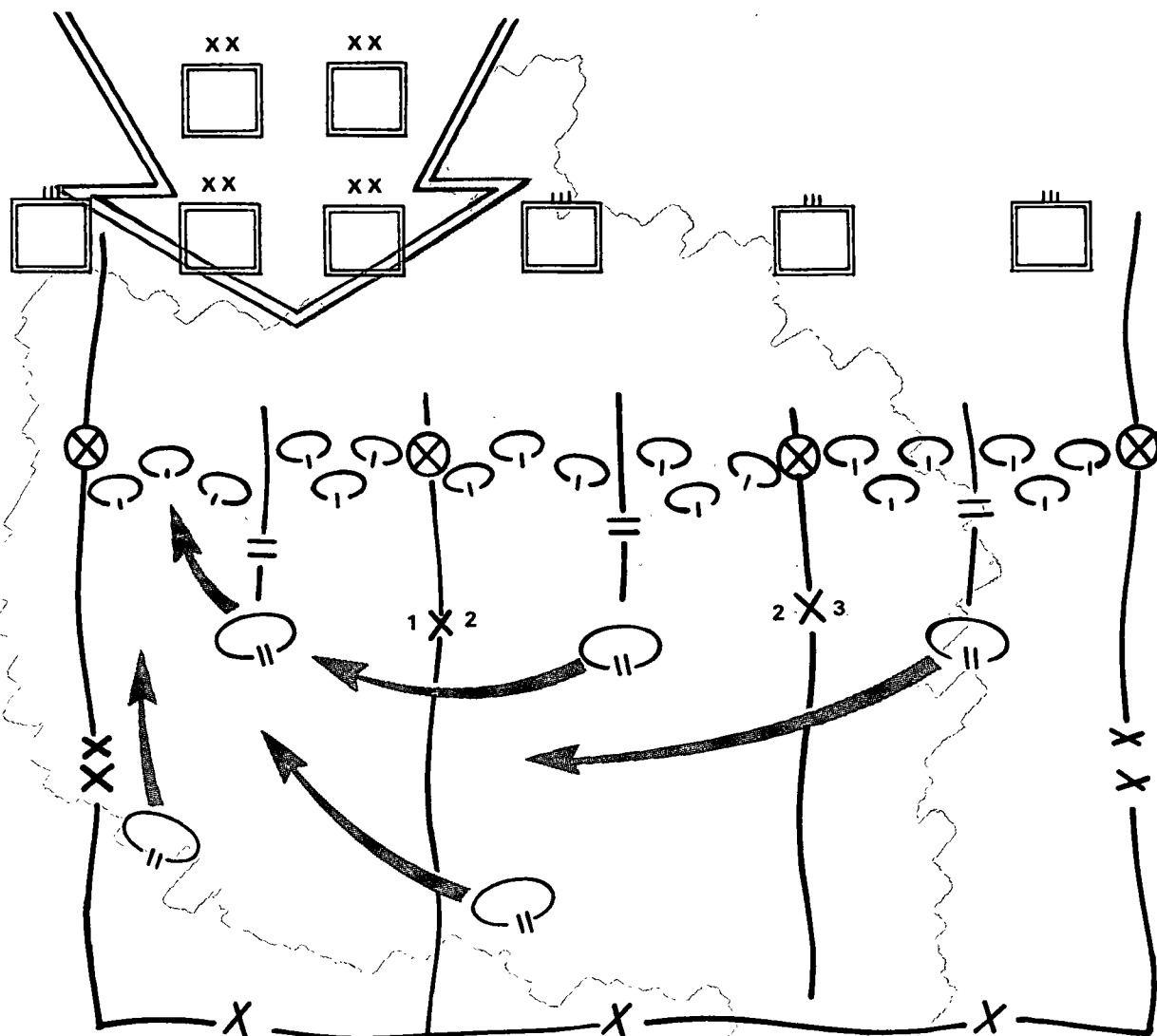
FOLD OUT FOR
EXAMPLES OF DEPLOYMENT BY TANK AND
MOTORIZED RIFLE BATTALIONS

● The meeting engagement is characterized by rapid change in the situation and fluid operations on a wide front, fast changes in combat formation, and open flanks for friendly and enemy forces. The meeting engagement normally occurs during the advance-to-contact whenever the opposing forces make contact. Threat doctrine assumes the meeting engagement will be the most common form of combat. The initial action is carried out by security and reconnaissance units, followed by intense reconnaissance and maneuvering in search for gaps or weak points. Helicopters will probably keep the pressure on by performing armed reconnaissance, cavalry, and air assault missions. The main body attacks immediately from the line of march with a frontal assault or envelopment maneuver to the flank or rear.



● The hasty attack is normally an extension of the meeting engagement. It is conducted when enemy prepared positions are encountered and Threat forces have quickly located an assailable flank or gap in the enemy defenses. Threat forces will deploy from the march column and attack without

Example 1 - RELOCATING FORCES TO CONCENTRATE



In this situation, the covering force has met the advance of the enemy on a broad front, and is fighting a strong delay battle. The covering force is identifying the enemy's main thrusts as being forward of the left sector toward the 1st Bde. As indicators become firmer, the division commander decides to start relocating task forces from the 2d and 3d Bdes to the sector of the 1st Bde.

The enemy main attack appears to consist of two motorized rifle

divisions in the first echelon, each division with two motorized rifle regiments forward. The enemy attack is narrowing as it advances through the CFA.

As the battalions of the covering force fight back toward the MBA, they will come under control of the MBA brigades for two reasons.

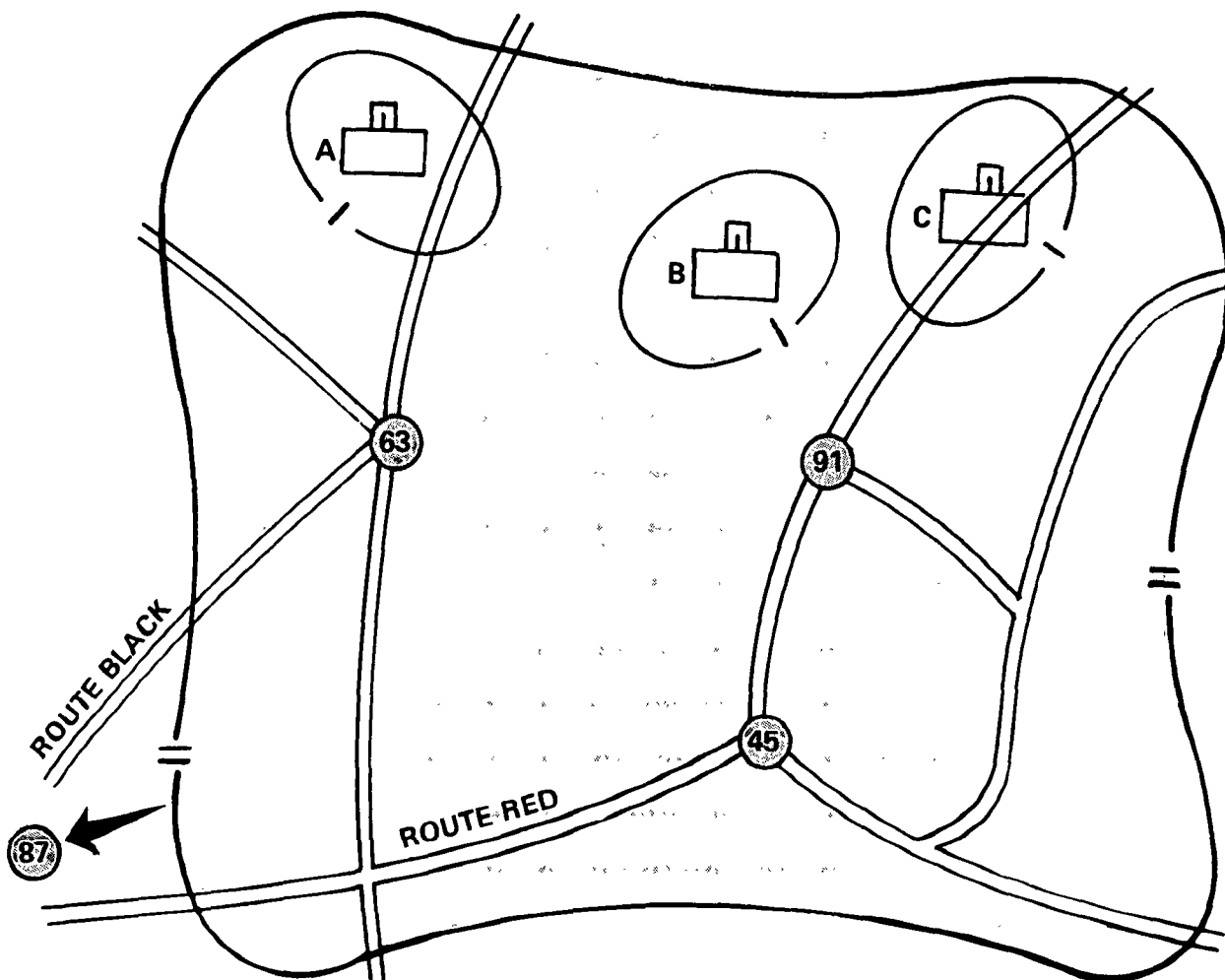
● One is to facilitate handing off the enemy to the MBA task forces. This means that the enemy must not be given a respite, or be

permitted to determine ahead of time that he is about to enter the MBA. If the handoff occurs properly, the enemy will be engaged by the fire of the MBA forces without a discernible break.

● The other reason is to facilitate the rapid and smooth passage of the covering forces through the forward MBA battalions.

Task Force 2-76 Mech is preparing to defend in the sector of the 2d Bde which is the center of the MBA.

Example 1 - RELOCATING FORCES TO CONCENTRATE (cont)



The TF 2-76 receives a change of mission from the 2d Bde commander over the secure brigade command radio net:

"You are relieved of your present mission. Move your command by the fastest routes toward checkpoint 87. You have route priority. Meet me at checkpoint 45 for instructions. My helicopter is on the way to pick you up."

The commander issues instruction over the secure battalion command net to the task force:

"Change of mission. TF 2-76 Mech moves now to checkpoint

87. Team A use Route Black, Team B move by the fastest routes to checkpoint 63, then on Route Black. Team C move to checkpoint 91 to 45 then Route Red. New mission to follow."

The commander also issues instructions to move the command post and trains toward checkpoint 87, and flies to meet the brigade commander. Within minutes all teams are moving in response to the order. At checkpoint 45, the brigade commander explains the situation. The important points are:

Covering forces will soon pass into the MBA. Enemy main

threats of two divisions have been identified. They are fighting toward the 1st Bde. The division commander intends to concentrate in the 1st Bde sector. To do so, he will move task forces from the 2d and 3d Bdes. Depending on the developing situation, the TF from the 3d Bde will either join the fight in the 1st Bde or occupy a more critical location in the 2d Bde.

Task Force 2-76 Mech is detached from 2d Bde. It will move under division control through checkpoint 87 to the 1st Bde. It is attached on arrival.

Example 1 - RELOCATING FORCES TO CONCENTRATE (cont)

Commander TF 2-76 Mech makes a map reconnaissance of the route while he awaits the arrival of Team C. When the team appears, he signals the team commander to dismount while the team continues to march. Instructions to Team C commander take about one minute.

He moves by helicopter to meet commanders of Teams A and B at checkpoint 63 and follows the same procedure with each. He dispatches the S3 (or some other member of the command group) to instruct command post and trains, and then moves off to the new assignment.

Quick response and movement are possible because:

- Checkpoints and routes had been planned in advance. (This could be done by division.)

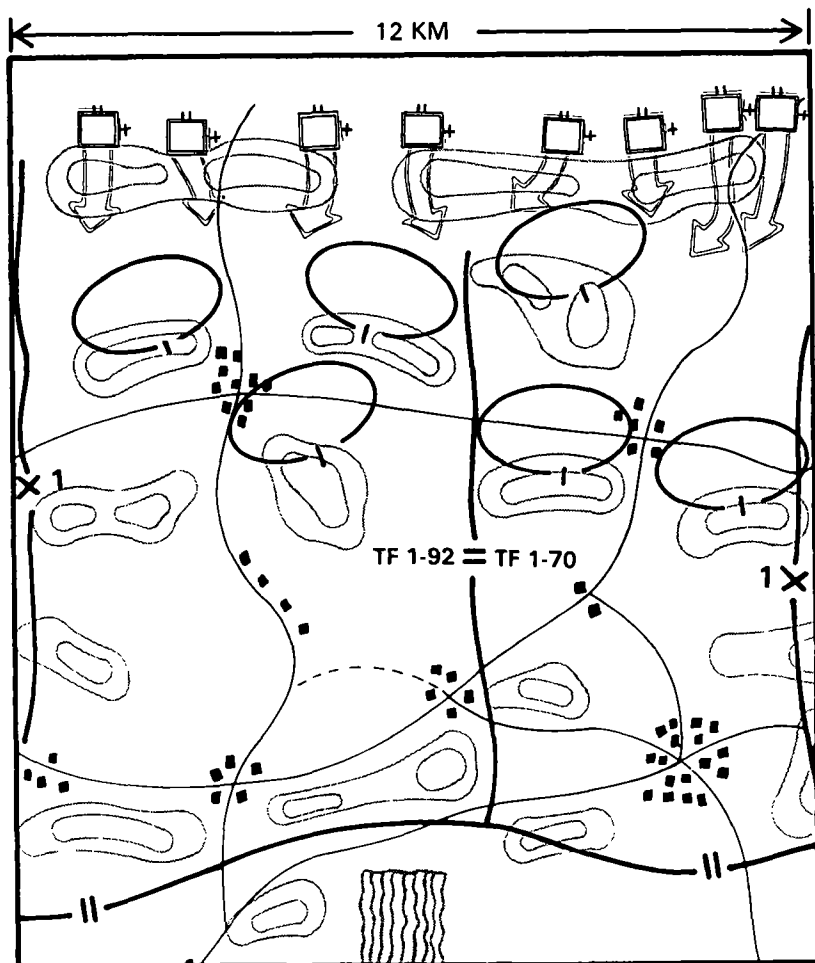
- Teams were trained to respond immediately to the mission change. Unit SOPs to facilitate rapid movement existed, were well known, and well-rehearsed.

- Minimum use of radios and maximum use of face to face coordination denied informa-

tion to the enemy and insured understanding by subordinates.

- Teams continued to move while commanders were briefed.

(Another way to brief a commander without halting the team is to join that commander in his vehicle, or have him join the task force commander, and except for a momentary halt for dismounting and mounting, all vehicles continue to move.)



While TF 2-76 Mech is moving, TF 1-92 Mech and TF 1-70 Mech are defending in the 1st Bde sector. The enemy breakthrough attempt consists of eight reinforced tank and motorized rifle battalions attacking abreast in the first echelon on a 12 kilometer front.

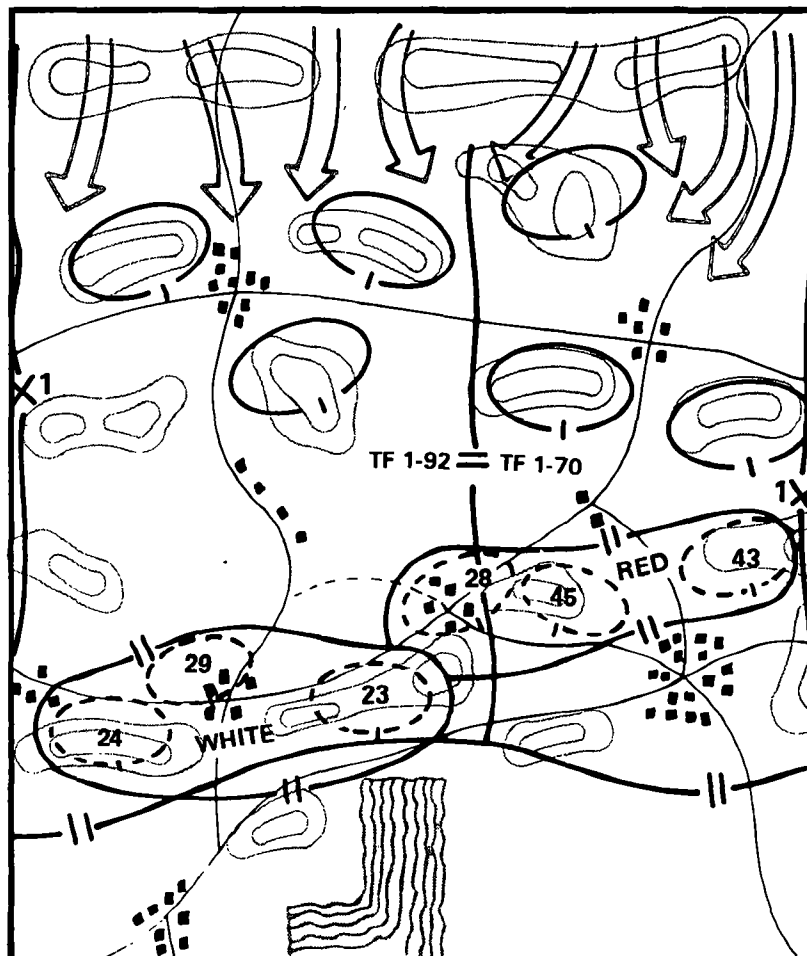
These first echelon battalions are closely followed by four reinforced battalions in their respective regiments' second echelon.

Example 1 - RELOCATING FORCES TO CONCENTRATE (cont)

The brigade commander realizes that the first task force available for deployment in his sector will not arrive in time to be deployed on the FEBA. Accordingly, he decides to have the first available task force, TF 2-77 Armor, occupy battle positions (BP) 23, 24 and 29. He designates this group of positions as *battle area WHITE*.

The next task force available to him will be TF 1-13 Armor, which he directs to occupy battle positions 28, 43 and 45. He designates this group of positions as *battle area RED*. The brigade commander notifies TF 1-92 and TF 1-70 of the creation of battle areas WHITE and RED. As other task forces arrive in the area of concentration, he will fit them to the ground as he sees fit at that time.

The commander of TF 2-77 Armor receives the mission from the brigade commander via secure voice radio to move to and occupy battle positions 23, 24, and 29 as rapidly as possible. He immediately starts his teams moving to these positions while he goes ahead to reconnoiter. If possible, he also talks to the brigade commander. Well-understood and well-rehearsed unit SOPs and excellent troop leading procedures allow his task force to move to and occupy these new positions rapidly.



In a very brief meeting with the brigade commander, he learns of the brigade commander's concept for fighting this battle. The TF commander quickly transfers the new boundaries of *battle area WHITE* to his own map.

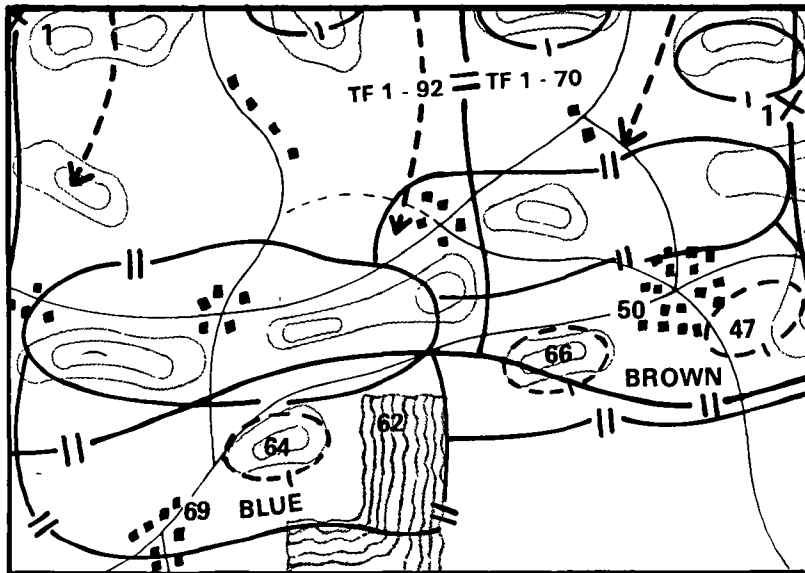
The boundaries of his battle area allow him to:

- Shift or move his company teams freely within his battle area as he sees fit (i.e., the brigade commander in this case did *not* restrict him by requiring him to hold a battle position).
- Call artillery or airstrikes into his own area but *not* into adjacent occupied battle areas without first coordinating. He may freely call in artillery forward of his boundary when

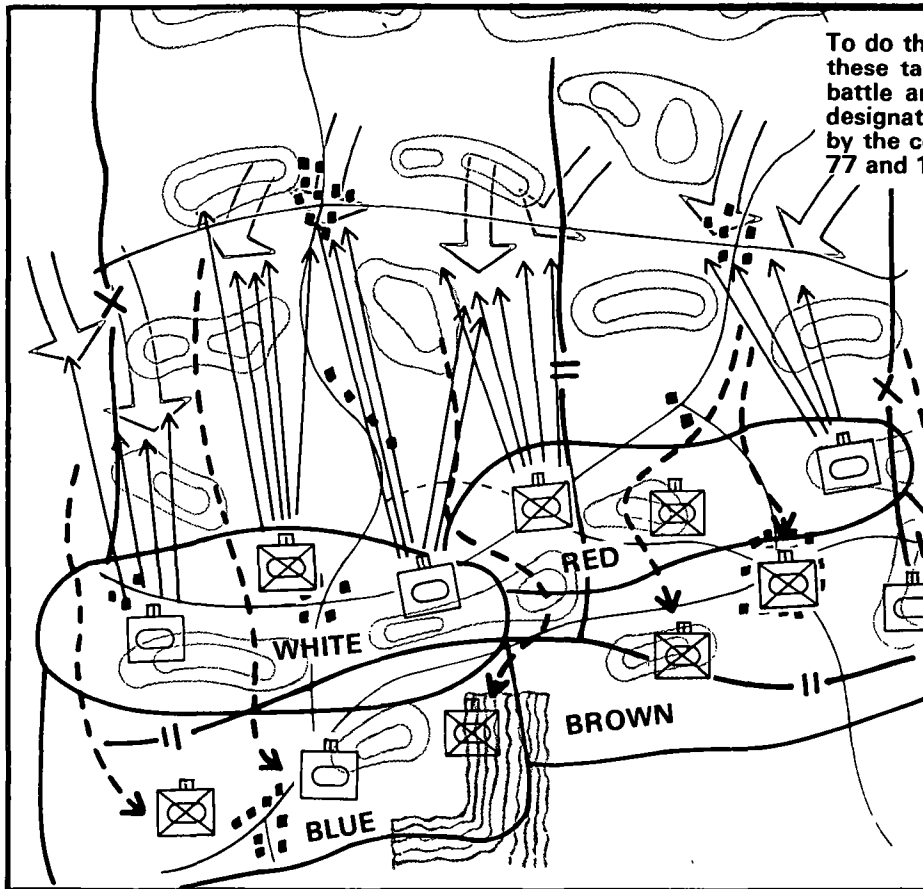
that terrain has been vacated by friendly units. In all cases, the brigade commander has required that he approve all requests to call in scatterable mines and emplace conventional mines.

- Fire direct fire weapons against clearly identifiable enemy targets *without* coordination.
- Be prepared to move or counterattack into the battle area of another unit on orders from the brigade commander.

Example 1 - RELOCATING FORCES TO CONCENTRATE (cont)



As the battle progresses, TF 1-92 and TF 1-70 heavily attrit the advancing enemy forces. However, they cannot hold their positions without becoming overrun. The brigade commander, therefore, directs TF 1-92 Mech to move to battle area BLUE and occupy battle positions 62, 64, and 69. TF 1-70 Mech is directed to move to battle area BROWN, and occupy battle positions 47, 50, and 66.



To do this, the company teams of these task forces move through battle areas WHITE and RED on designated routes overwatched by the company teams of TFs 2-77 and 1-13.

Example 1 - RELOCATING FORCES TO CONCENTRATE (cont)

As friendly forces vacate the area forward of battle areas *WHITE* and *RED*, the TF commanders are free to employ indirect fires without restriction on advancing enemy forces. As enemy units advance, TF commanders orchestrate the fires from their own company teams and, most important, they insure that fires from their battle positions complement fires from adjacent battle positions of other task forces.

As the battle is fought in battle areas *WHITE* and *RED*, resistance considerably stiffens. Attrition of enemy units is high, but he

continues to advance, hoping to break through our defenses. Two new task forces arrive in the area of concentration and the brigade commander fits them to the terrain and assigns them battle areas to the flanks of *WHITE* and *RED*. Task forces 1-92 and 1-70 Mech are now occupying battle positions in battle areas *BLUE* and *BROWN* and are prepared to fight.

Since the enemy is continuing to advance despite heavy losses, the brigade commander decides to move his task forces out of battle areas *WHITE* and *RED*. They displace by company team and

move through battle areas *BLUE* and *BROWN*, overwatched by company teams from these task forces. TFs 2-77 and 1-13 Armor take up new battle areas designated by the brigade commander.

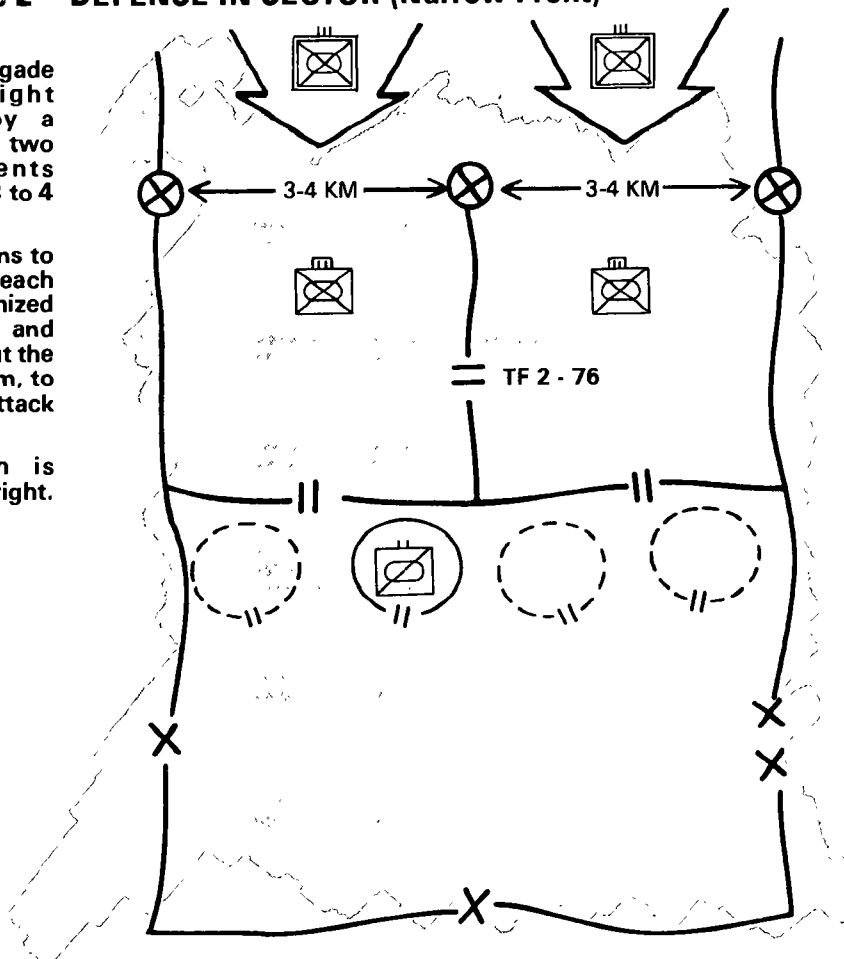
The enemy advance is halted in battle areas *BROWN* and *BLUE*. The brigade commander attaches a company team each to TF 1-92 and TF 1-70 for an immediate counterattack. Weakened enemy elements are destroyed and several battle positions are retaken.

Example 2 - DEFENSE IN SECTOR (Narrow Front)

In this example, the brigade commander on the right anticipates an attack by a motorized rifle division with two motorized rifle regiments forward, each on a front of 3 to 4 kilometers.

The brigade commander plans to block the advance of each regiment with a mechanized infantry battalion task force and use the cavalry squadron, that the division commander gave him, to block, reinforce, or counterattack as the battle develops.

Task Force 2-76 Mech is defending in sector on the right.



Example 2 - DEFENSE IN SECTOR (Narrow Front) (cont)

Against an enemy regiment the ratio of critical systems is as shown here:

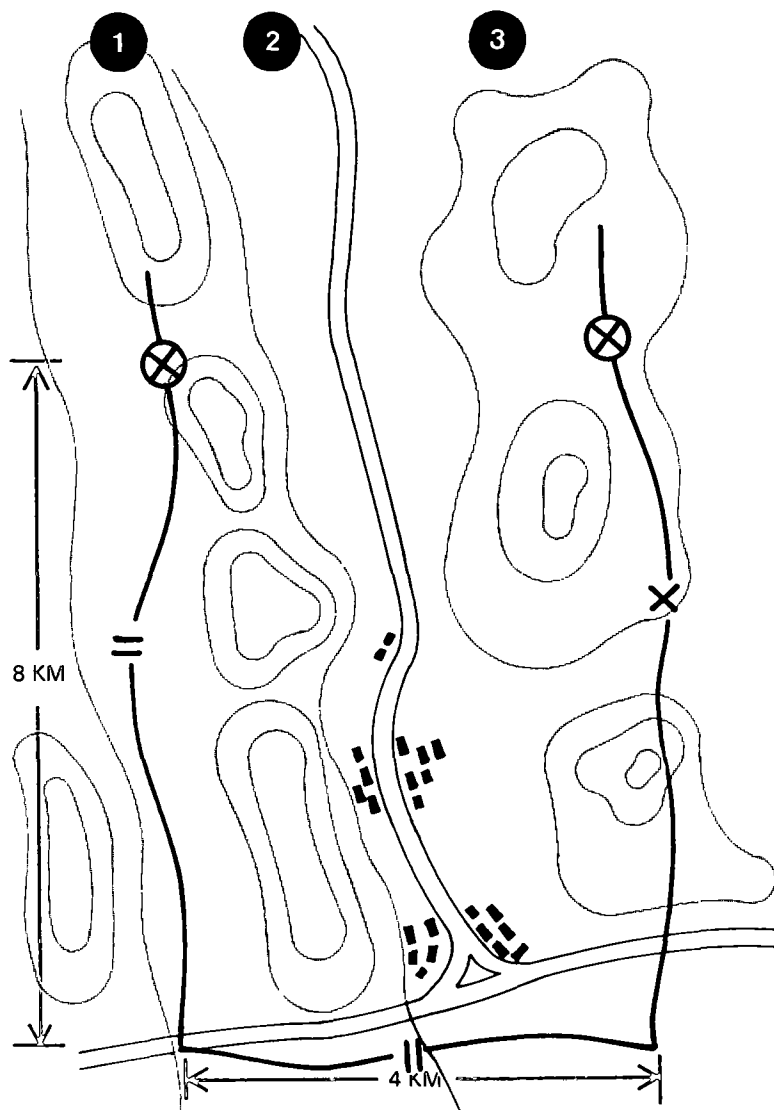
SYSTEMS	ENEMY	FRIENDLY	RATIO
TANKS	40	17	2.3:1
HAW MAW ANTITANK ASSETS ¹	111	44	2.5:1
INFANTRY VEHICLES ²	96	37	2.6:1
INFANTRY PLATOONS ³	27	7	3.8:1
ORGANIC INDIRECT FIRE WEAPONS	24	13	1.8:1

1 INCLUDES BMP AS ANTITANK SYSTEM

2 BMPs AS INFANTRY COMBAT VEHICLE ONLY

3 INCLUDES SCOUT PLATOON

Realizing that he has certain advantages as the defender, the ratio of combat power is acceptable.



The task force commander quickly determines that there are three avenues of approach through his sector. The most likely avenue to be used by the enemy in this case is avenue of approach 2, in the center, because it is a high speed armor approach. Avenues of approach 1 and 3 on the flanks can be used by either armor or infantry but are less dangerous initially because of restrictive terrain.

He expects the enemy to attack initially along avenue of approach 2 in order to clear this road and provide a route for the forward movement of supplies and combat support units.

The enemy will probably employ security forces along avenues of approach 1 and 3 and push down avenue of approach 2 until strong resistance is encountered, then attempt to envelop or bypass.

He estimates that the enemy can deploy a battalion along the principal avenue of approach leading into his sector. It will have about 13 tanks and 30 BMP.

Example 2 - DEFENSE IN SECTOR (Narrow Front) (cont)

The commander's initial task is to plan for inflicting maximum damage on the enemy's armored vehicles at long range. He then wants to fight a mobile battle of attrition, continuing to damage the enemy and progressively weakening him.

He selects positions near the forward edge of his sector which provide for long-range antitank fires. He plans to position the bulk of his TOWs and tanks on these

positions initially. The high speed approach down the valley must also be blocked. He will use minefields and other obstacles already constructed forward of his positions to disrupt and canalize the enemy. Artillery fires are planned to slow the enemy, destroy him if he dismounts, and inhibit reinforcements.

Each team will operate in varied terrain and must have multiple capabilities through the battle.

Therefore, the task force commander organizes teams with similar balance of capabilities. This organization will provide a good mix of complementary combat systems for this terrain. The commander will be able to easily shift teams without being concerned about reorganizing the task force in the middle of a fight. When terrain is radically different in various parts of this sector, it may be necessary to reorganize during the fight.

TEAM ORGANIZATION

TEAM A	TEAM B	TEAM C (TANK)
1 TANK PLATOON	1 TANK PLATOON	1 TANK PLATOON
2 INFANTRY PLATOONS	2 INFANTRY PLATOONS	2 INFANTRY PLATOONS
3 TOW SECTIONS	3 TOW SECTIONS	2 TOW SECTIONS
MORTAR SECTION	MORTAR SECTION	2 HQ TANKS

The battalion task force commander must employ his

forces and weapons to create a defensive system which will mass

sufficient fires in selected areas along avenues of approach.

To do this, he must:

● Identify avenues of approach for both mounted and dismounted forces.

● Select likely engagement areas for each type of weapon along each avenue of approach.

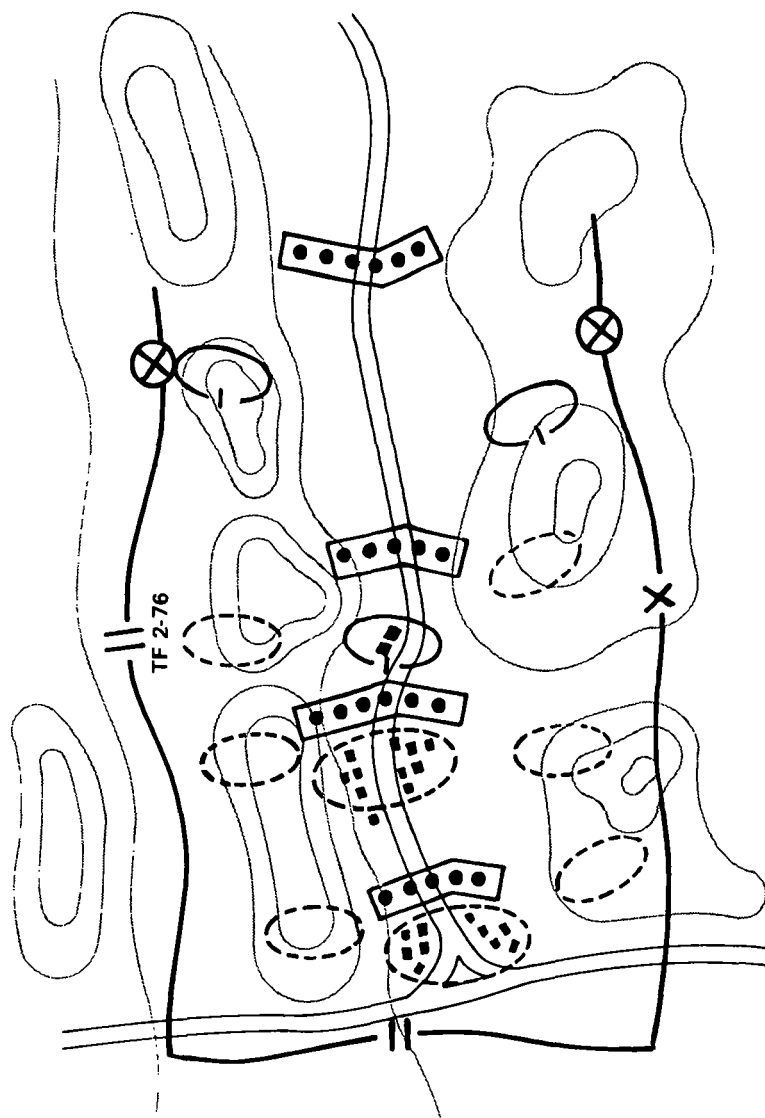
● Estimate the maximum size and type of force the enemy can deploy in the first echelon for each avenue of approach.

● Determine the density and type fire required to destroy or repel the enemy in each area.

● Allocate sufficient forces under available control headquarters to deliver this fire. Give priority of force allocation to teams firing on those avenues considered most dangerous and economize forces in other areas.

● Prepare to reallocate and reposition forces during the battle by anticipating future requirements. The initial task organization must be developed after considering more than occupation of initial positions. To reduce confusion, every attempt should be made to limit the number of task organization changes required once the battle is joined.

Example 2 - DEFENSE IN SECTOR (Narrow Front) (cont)



After the initial engagement, the commander must be prepared to fight a fluid battle in depth. He wants to wear down the enemy within his sector. Positions are therefore planned in depth. They will be occupied, abandoned, and reoccupied insofar as they offer an opportunity to inflict damage on the enemy. He establishes mines and barriers throughout the sector to canalize the enemy, reduce his mobility, and hold him in areas where fires can be concentrated.

He deploys his force initially as shown.

The teams on the flanks can cover the valley by fire initially, but they can be suppressed by fire and blinded by smoke. Therefore, the valley must be blocked by another team. A minefield is used to assist in blocking the valley and is covered by fire by the team occupying the village. The village, combined with the minefield, provides an effective fortified obstacle with relatively little preparation.

The battalion task force commander will control the battle by using battle positions and designated routes. In this case, positions are preferred over areas of operation because there are obvious avenues of approach, the enemy is restricted as to his courses of action, and the terrain provides several areas where the task force can fight decisive battles yet retain the ability to disengage and relocate forces if required, all under task force control.

The task force commander takes the following steps to minimize vulnerability to enemy suppressive fires:

- Avoids positioning teams on easily targeted terrain features.

- Designates successive positions throughout the sector to assist in quickly redeploying teams once they have been targeted.

- Plans to fight from covered positions where possible.

- Requires use of camouflage and concealment.

- Plans movement using covered routes.

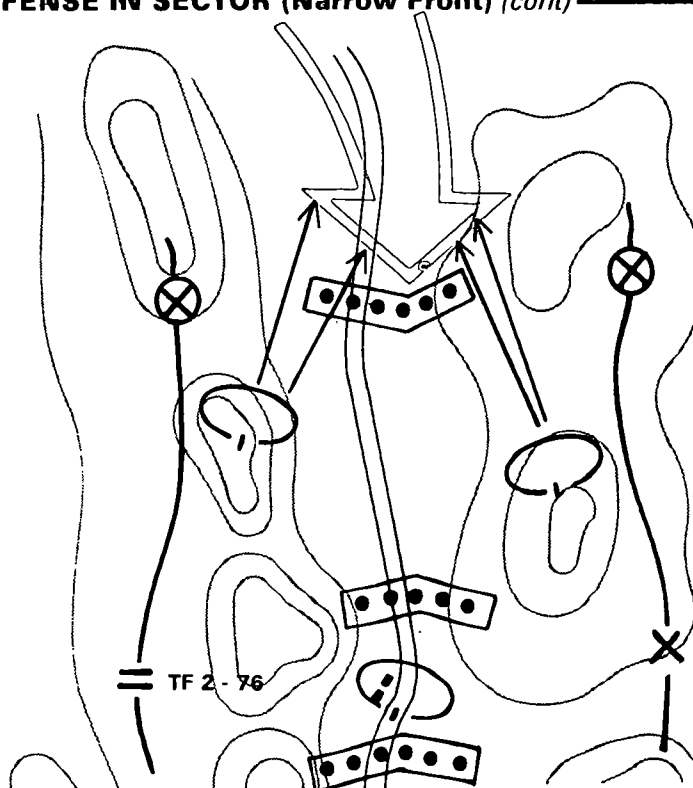
- Prepares to smoke and suppress likely enemy overwatch positions and degrade enemy ability to adjust fires.

Example 2 - DEFENSE IN SECTOR (Narrow Front) (cont)

The enemy attacks initially along avenue of approach 2 as anticipated. His forward units are engaged as they encounter the first obstacles.

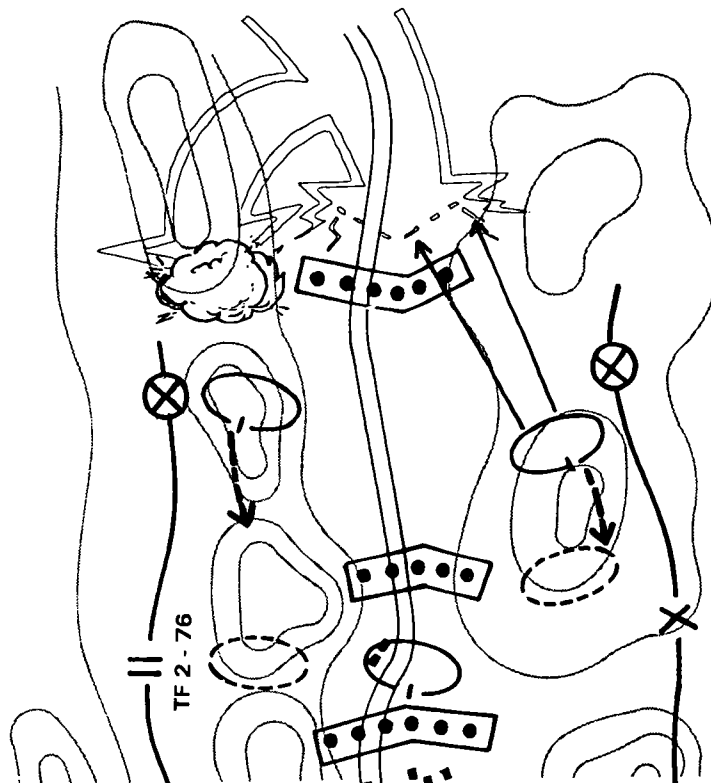
The enemy reacts immediately with heavy artillery and mortar fires and a hasty mounted assault against the team on the left. Because of intense friendly antitank fires, the enemy is forced to dismount. His dismounted assault is stopped by infantry, mortar, and artillery fires.

Unable to overcome the resistance, the enemy intensifies his indirect fires and moves up additional artillery in preparation for an attack.

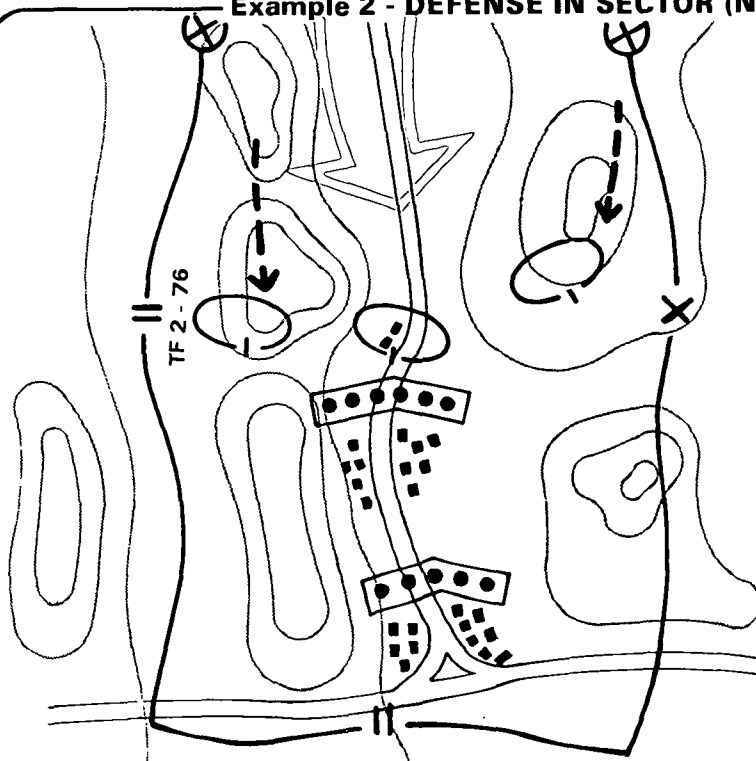


The enemy exerts pressure along the entire front. Since he encounters resistance on the flanks, he attempts to suppress the positions with smoke and fires, and move a large force down the valley. On orders from the task force commander, teams on the flanks displace, one at a time, to new positions further to the rear and prepare to engage the enemy as he advances. For the time being, the center team remains in position.

The enemy advance is slowed in the center by the minefield covered by the team in the village.



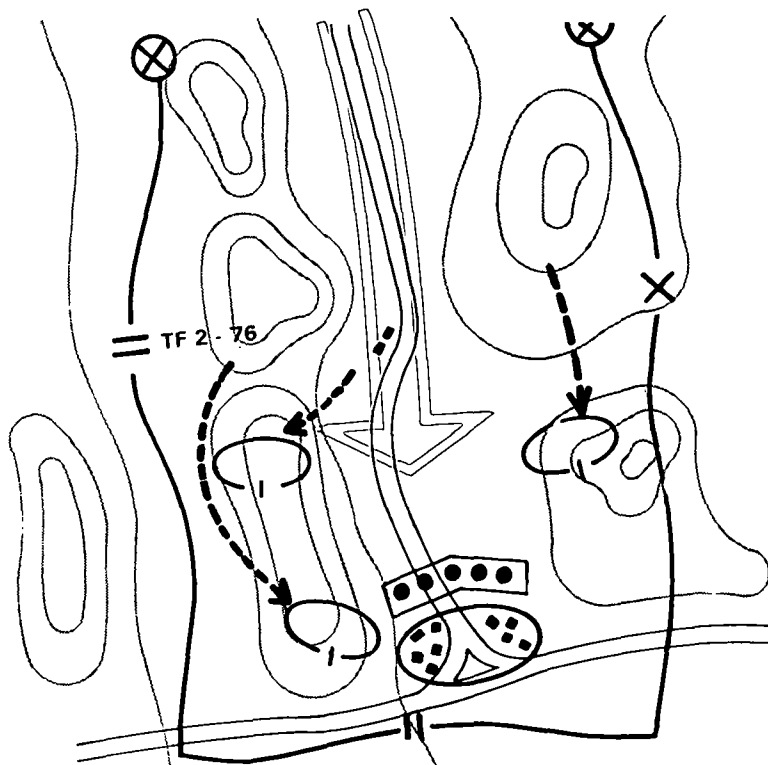
Example 2 - DEFENSE IN SECTOR (Narrow Front) (cont)



In spite of losses, the enemy forces through under heavy smoke and indirect fires.

The task force commander again repositions his forces along terrain deeper in sector, further evading suppressive fires against positions which the enemy has discovered and concentrated against.

In the active defense, commanders at all levels must take advantage of every opportunity to destroy the enemy. The brigade and task force commanders must be watchful to exploit the enemy weaknesses. They must be prepared to move forces to attack the enemy from unexpected directions, in the process reoccupying terrain features which help in maximizing the effectiveness of the defense.



The enemy continues to maintain pressure along both flanks and uses large amounts of smoke to cover his force in the valley. Nevertheless, the task force commander observes that the tempo of the enemy advance is slackening. He advises the brigade commander that the enemy has been weakened: his center forces are exposed and present a lucrative target; the time is ripe for a limited counterattack.

The brigade commander now has another task force under his control and decides to reinforce TF 2-76 Mech. He alerts the uncommitted battalion located in a battle area to the rear of the forward battalions to attach a tank-heavy company team to this task force to conduct a counterattack.

The enemy continues to attack in the center, but pressure is lessening against the flanks. The task force commander directs all teams to hold present positions while the counterattack is organized and conducted.

Example 2 - DEFENSE IN SECTOR (Narrow Front) (cont)

The task force commander quickly analyzes the situation:

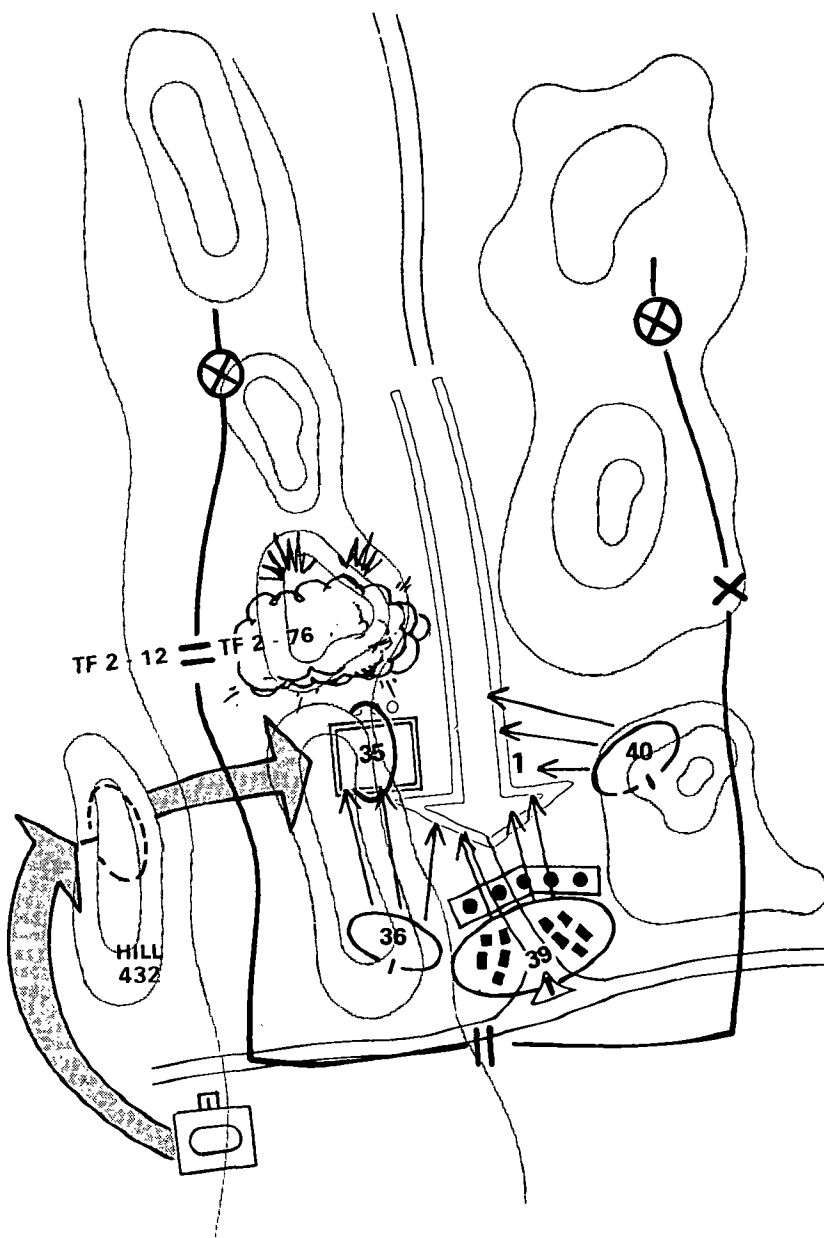
The enemy in the valley is strong, but increasingly exposed to fires from his flanks. The enemy now on BP 35 has been attrited markedly and is estimated at the moment at no more than platoon strength.

Counterattacking from BP 36 or BP 39 would meet the enemy's strength, and likely accomplish little. Adding more forces to BP 40, while beneficial, would not destroy the force in the valley.

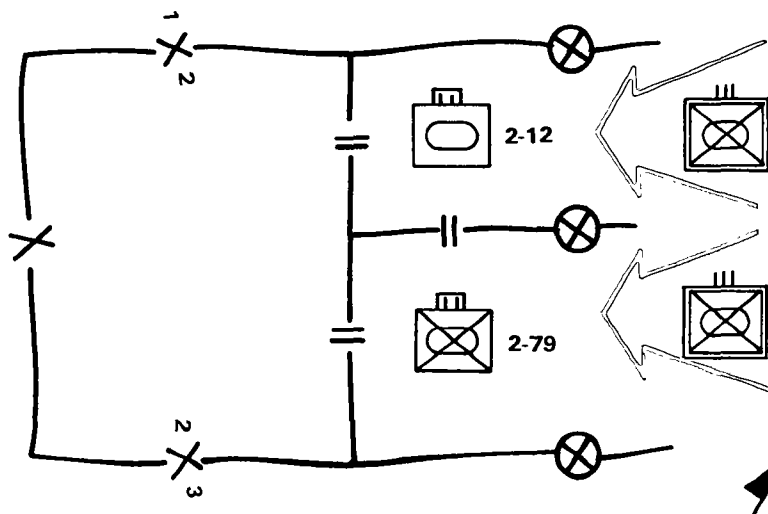
A surprise attack from the west against BP 35 would probably work. If the enemy is suppressed by fires from BP 36 and 39, and indirect fires seal and smoke the terrain to the north of BP 35, our forces would be in position to destroy the enemy in the valley with fires from BP 35 and 40, in addition to those from BP 36 and 39.

Having reached a decision, the TF commander coordinates with commander, TF 2-12 Armor for clearance to have the team joining TF 2-76 make the attack.

The team commander is given a fragmentary order (over the same task force command net) to move to the west side of HILL 432 and prepare to engage the enemy on BP 35. When and if it appears that the enemy there has been largely destroyed, the TF commander will order the team commander to seize BP 35 while the TF fires smoke and suppressive fires on the terrain overlooking BP 35 from the north.



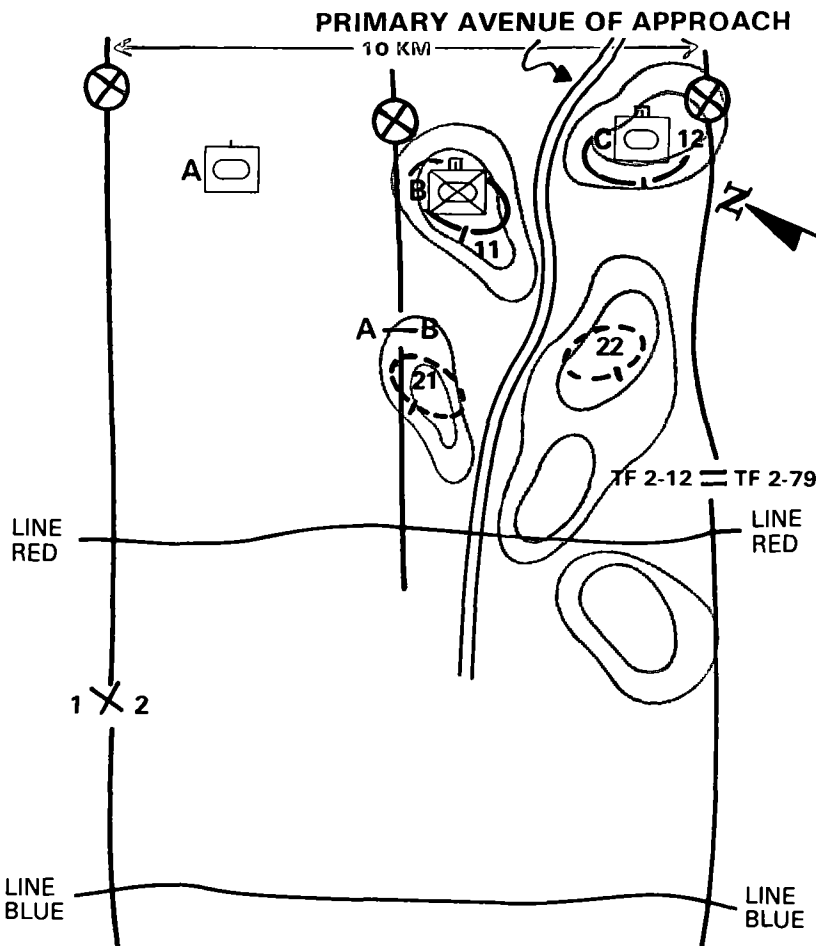
Example 3 - DEFENSE IN SECTOR (Wide Front)



This example describes another way to defend in an area which is relatively wide and, while under strong attack, is not in the path of the main effort.

Having given up two battalions to the 1st Bde as part of the division commander's effort to concentrate, the center (2d) Bde consists of two battalion task forces, both forward.

The brigade commander can now refine his scheme of defense to defeat the anticipated enemy threat in his sector. He plans to block the advance of each regiment with a battalion task force. Because he may have to fight these battalions in depth, he assigns them sectors.



Task force 2-12 Armor is deployed as shown.

The primary enemy avenue of approach into the task force sector is on the right. The battalion task force commander has ordered Teams B (mechanized infantry heavy) and C (tank heavy) to occupy battle positions 11 and 12 respectively. He has assigned Company A a wide sector which includes several secondary avenues of approach. He intends to engage enemy forces on the right at long range with TOW and tank fire. In this way, he plans to strip away any reconnaissance screen and force the enemy to deploy early into a hasty attack.

If the extent of the enemy's fire and maneuver makes it necessary, he intends to move his units to battle positions 21 and 22, respectively, to continue the defense. Company A is prepared to maneuver to counter any secondary threats in its sector, to attack the enemy flank when appropriate, or to relocate beyond phase line Red and Blue.

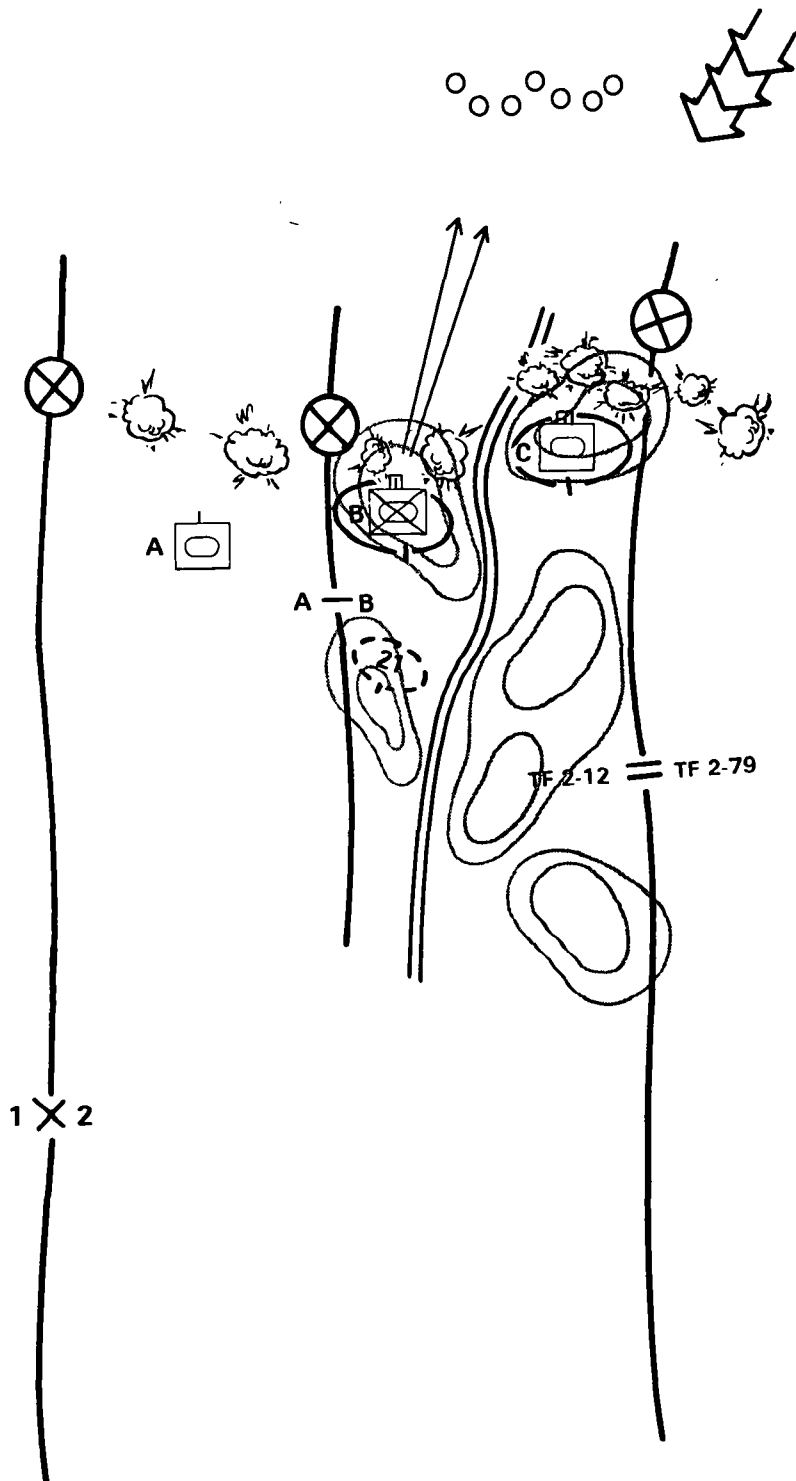
Example 3 - DEFENSE IN SECTOR (Wide Front) (cont)

The battalion task force commander has planned his operation in depth. He has planned several ways to maneuver company teams to concentrate. He has also planned ways to continue the fight if a company team is detached to another task force or if he should receive an additional company team.

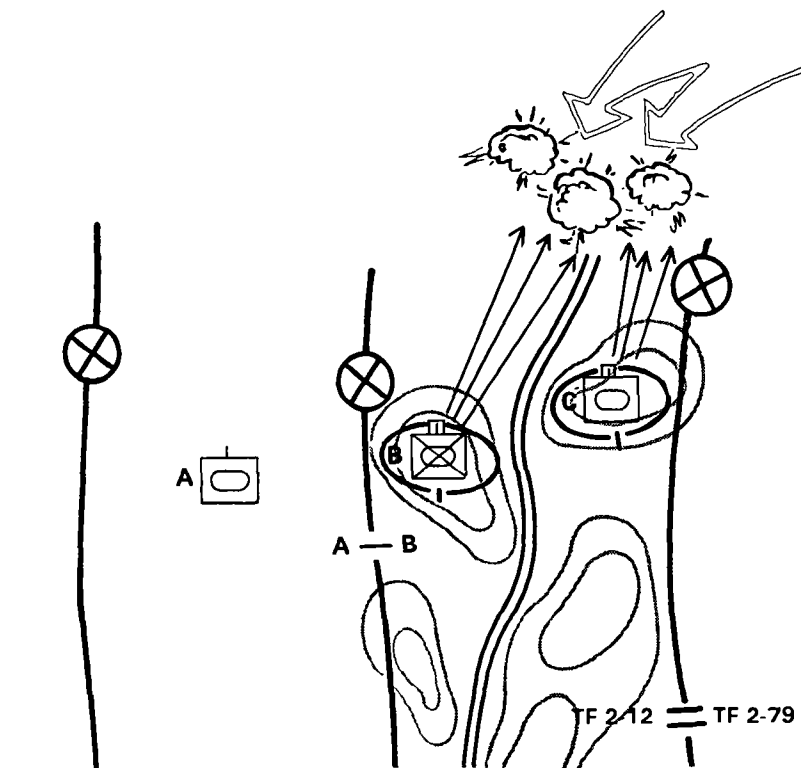
The enemy attack is preceded by small reconnaissance units which appear in the distance. Radar operators report that there are no units immediately behind these reconnaissance vehicles. Team B engages them with TOW, then with tank guns; the Team forward observer adjusts artillery fire. Most enemy reconnaissance vehicles caught in the open are destroyed. One or two deploy to cover and stop. For a few moments there is no enemy response as artillery fire continues in the suspected enemy locations. Soon enemy artillery fire starts to fall in Team B's positions. Over the next half hour this pattern of activity is repeated in front of Company A, Team C, and in the sector of the adjacent task force.

Radar operators and observation posts report the approach of twenty to thirty tracked vehicles. They are moving toward the battle position occupied by Team C. The battalion task force commander believes this to be an advance guard. According to the concept he has developed for this defense he:

- Requests airstrikes.
- Calls for artillery fire on the formation.
- Orders Teams B and C to engage with all weapons in range.
- Alerts Company A to be prepared to occupy BP 21 or a position in the forward part of its sector from which to engage this enemy force.
- Alerts scout platoon to screen TF north flank.
- Reports the situation.

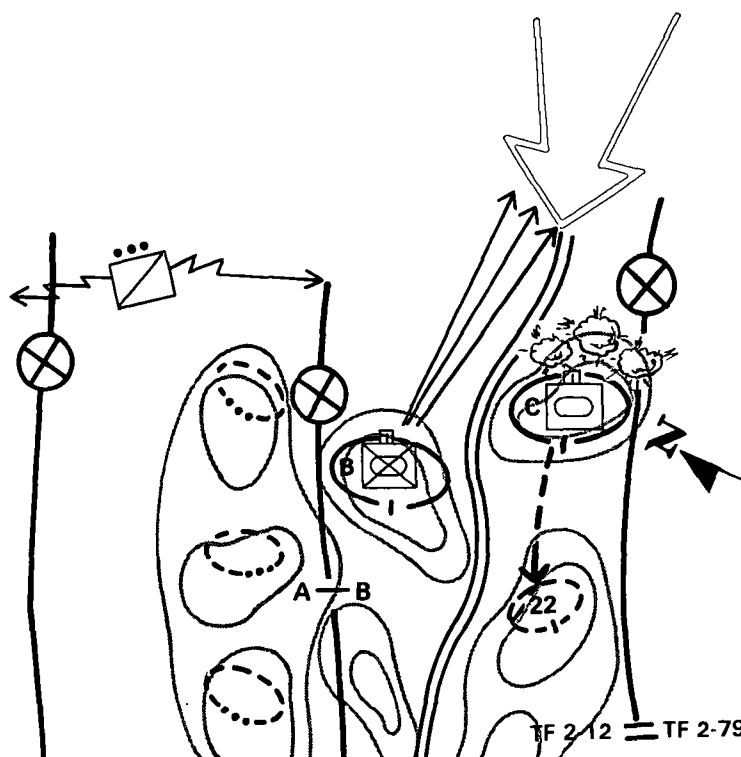


Example 3 - DEFENSE IN SECTOR (Wide Front) (cont)



The enemy force deploys into platoon columns as it comes into full view about 2500 meters away. It moves rapidly toward Team C but proves no match for the combined fires of Teams B and C. As it closes to within 1000 meters and Dragon fire is added to artillery, mortar, TOW, and tank gunfire, all but a half dozen vehicles have been halted. Some burn; others bear no visible signs of damage but have been hit and stopped. Among the vehicles specifically engaged are the accompanying ZSU-23-4 air defense weapons. The air strike previously requested arrives and is targeted on the remaining vehicles by a Forward Air Controller with the task force commander.

During a short lull that follows, Teams B and C adjust their positions, redistribute ammunition, attend casualties and make minor repairs to vehicles and dug-in weapons positions.



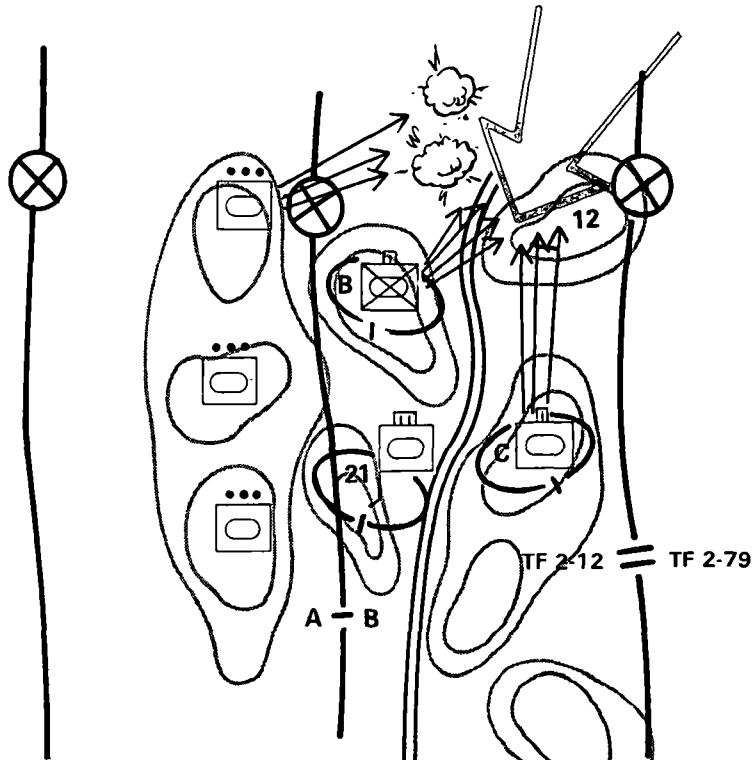
Shortly thereafter a heavy volume of artillery fire starts to impact in the adjacent task force sector. Also, Team C's battle position is being smoked. Team B OPs report over a hundred enemy vehicles maneuvering toward Team C from the right front. Team C is unable to observe. The task force commander directs:

- Team C to occupy Battle Position 22.
- Team B to engage enemy forces in range.
- All available artillery and mortars to fire on the attacking formation.
- Company A to locate on the right side of its sector to engage this enemy formation when it is within range.
- Scout platoons to screen TF north flank.

Example 3 - DEFENSE IN SECTOR (Wide Front) (cont)

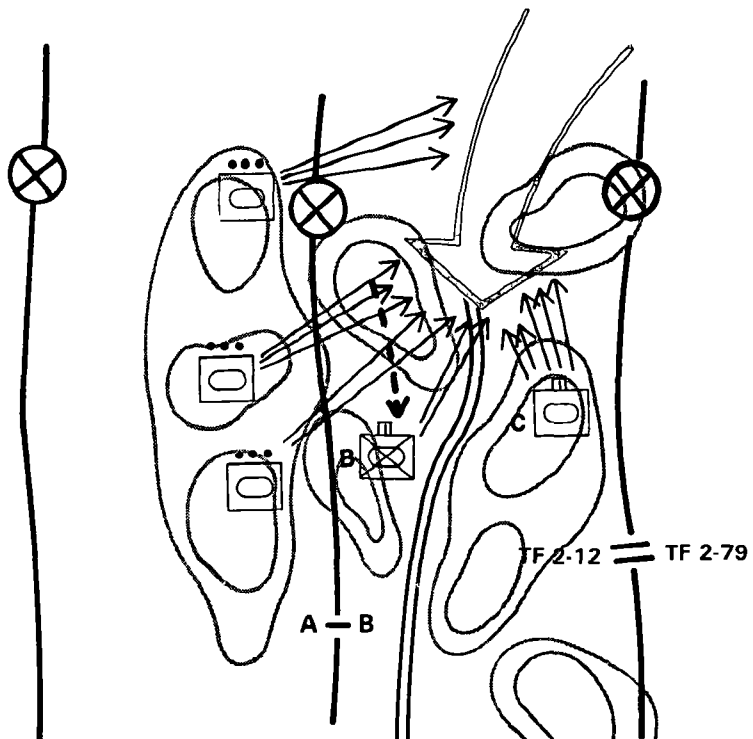
The task force commander reports the situation and moves to *Battle Position 21* to observe. The situation is as shown.

As the enemy reaches *Battle Position 12*, now abandoned, he receives artillery, mortar, TOW and tank fire from Team B and one platoon of Company A. As soon as Team C can observe the enemy, it engages from its new position. The enemy is closing rapidly on Team B. The task force commander orders Team B to relocate to *Battle Position 21* before it loses freedom of maneuver.

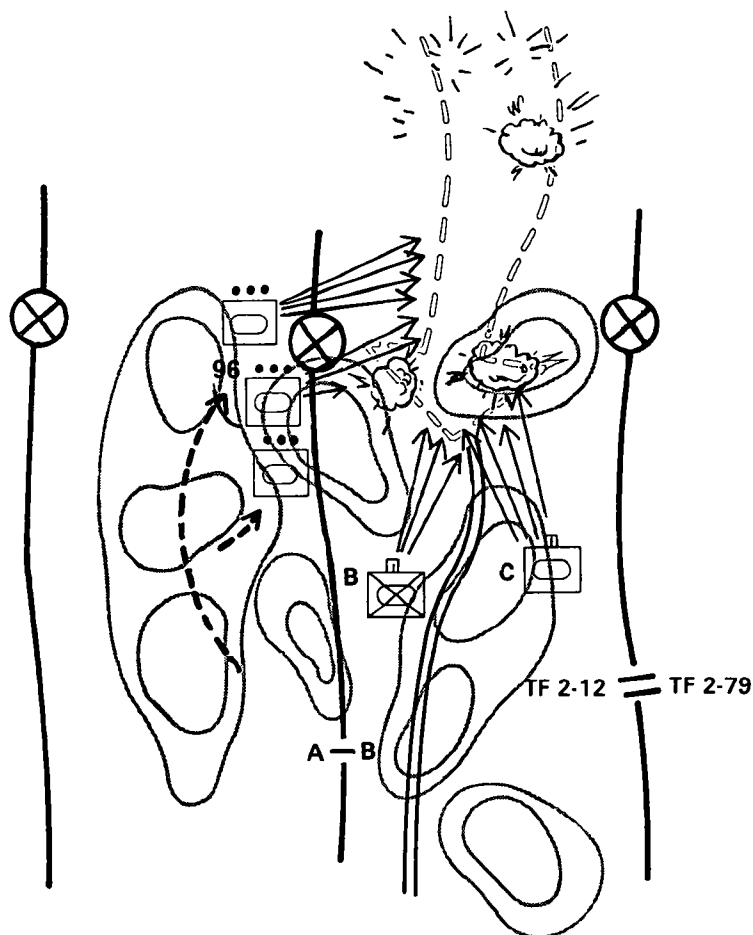


The enemy formation, receiving direct fire from its front and right front, starts to maneuver to its left. Fire from the defensive positions slackens momentarily while Team B relocates. But as the formation passes the now unoccupied hill on its left, Team C places a high volume of tank fire on the enemy's left front.

The rear of the formation is still receiving fire from its right (Company A) and as they press their attack, now shifting artillery fire to the next line of hills, they receive fire from the right (the other two platoons of Company A) and again from the front (Team B in its new position).



Example 3 - DEFENSE IN SECTOR (Wide Front) (cont)



The enemy attack is broken and halted by the combined fires of Teams A, B, C, and field artillery and mortars. All vehicles in the leading half of the formation are out of action. The rear companies of this formation, still outside the original defensive positions, start to maneuver to their right to gain cover.

Recognizing the success of defensive actions thus far and that the attack has halted, the task force commander orders Company A to counterattack by moving to vicinity Hill 96 and engaging the rear of the formation. Company A commander quickly maneuvers two platoons to join the third near his forwardmost position. He maneuvers platoons only to the extent necessary to regain advantageous firing positions.

As the fires of the second and then the third tank platoon are added to the fight, this enemy force is halted before it gains cover. Field artillery and mortar fire add to the fight, keeping enemy hatches closed and eliminating crewmen as they abandon knocked-out vehicles.

At the conclusion of this fight, the task force commander reports destruction of most of an enemy regiment. His own losses have been minimal due to careful preparation of positions, relocation of units when faced with massed artillery fire, and rapid, accurate engagement, often on the flanks of enemy vehicles from positions of advantage.

This example illustrates these main points:

- *The task force commander recognized the approach of enemy reconnaissance units and destroyed them at maximum effective range.*
- *He destroyed the enemy advance guard*

with combined arms firepower from well-prepared positions.

- *He maneuvered forces and fires to concentrate against the main enemy thrust, optimizing first-shot advantage, long-range fires, combined arms, knowledge of the terrain, and a combination of techniques.*
- *He closely controlled two teams along the primary enemy avenue of approach. He allowed greater freedom to the one company team assigned several secondary avenues of approach and several contingency missions.*
- *He maneuvered forces rearward, laterally, and forward, wherever the opportunity for success was present.*

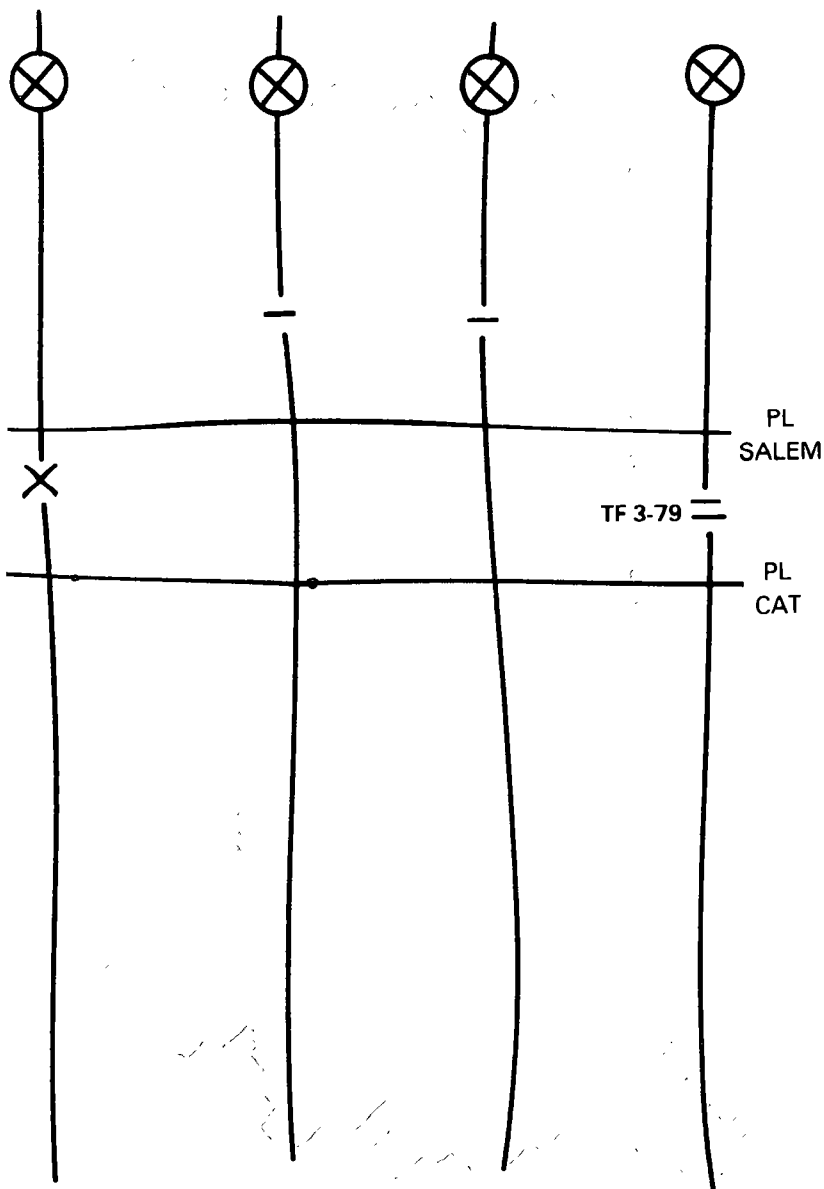
Example 4 - A TASK FORCE DELAY IN AN ECONOMY OF FORCE AREA

Because the brigade has been given a very wide sector and relatively few forces, Task Force 3-79 Mech has been given a delay mission. The brigade commander intends for this task force to secure the left portion of the division sector. Commander, TF 3-79 Mech, has been told to maneuver his company teams to slow and defeat as much of the enemy as possible, but not to sacrifice the tactical integrity of the task force.

The task force can defeat enemy reconnaissance units and advance guards, even attacks by a larger force, as long as the local force ratios to platoon, teams, and even the entire task force do not pose the risk of being overwhelmed. The TF is not capable of fending off an attack by substantial enemy forces without accepting a high degree of risk. However, this risk may become necessary if the preservation of the force must become secondary to the requirement to slow or temporarily halt the attack.

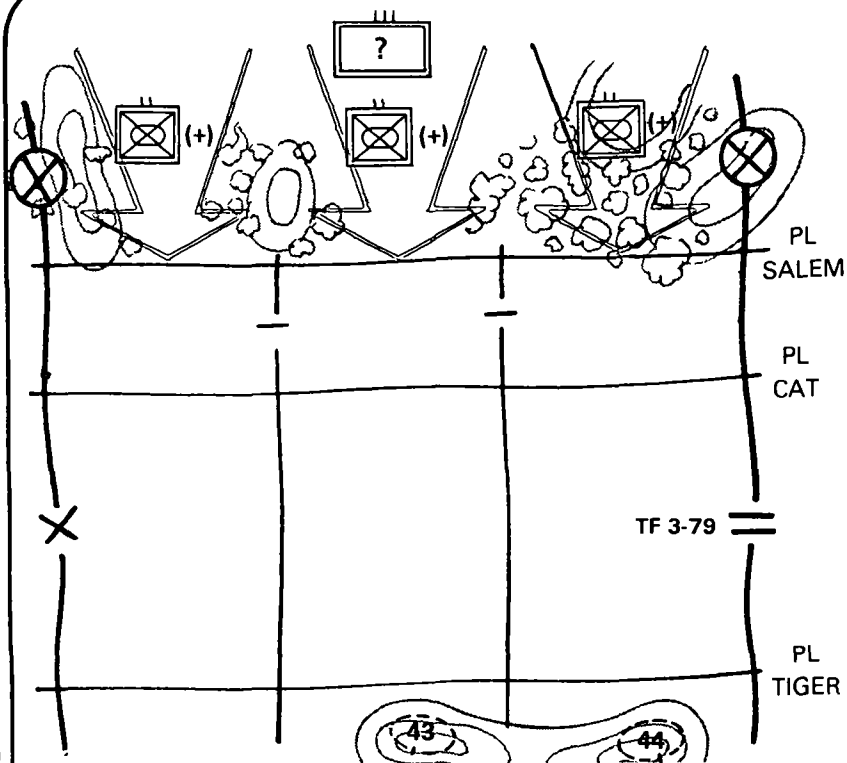
The assigned sector is in rough and broken terrain, containing many secondary, but not major, avenues of approach.

The task force commander organizes three similar company teams to provide a mix of weapons and capabilities throughout the sector. He requires each team to report all proposed team battle positions, and be prepared to delay enemy forces forward of *Phase Line Salem*. He attaches TOW sections to each team. He splits the heavy mortar platoon so as to more nearly cover the entire width of sector and support all teams, especially the tank team which has no organic mortars.



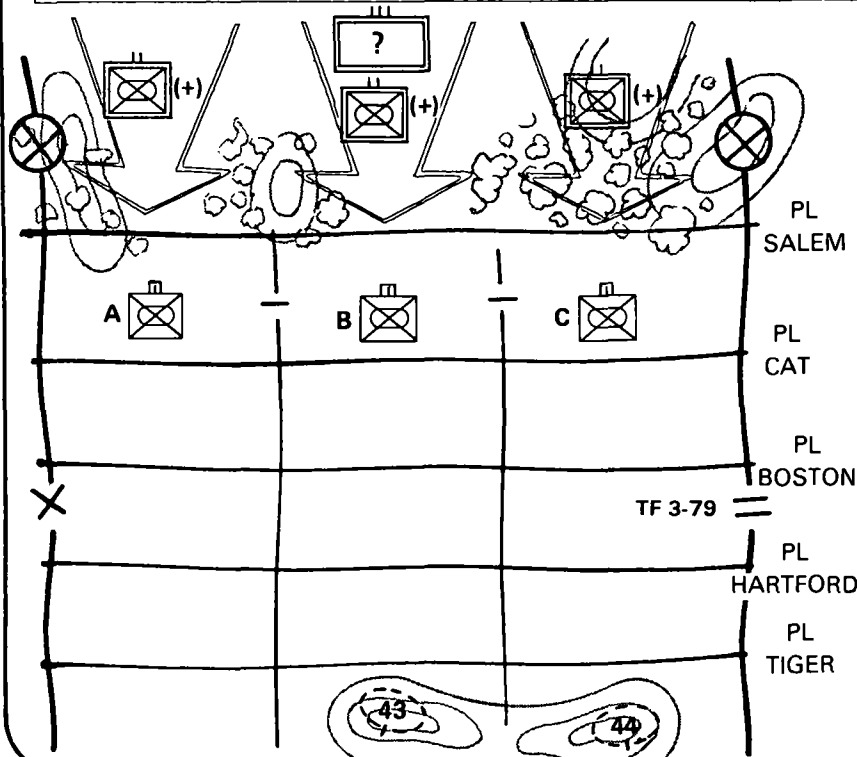
Scouts maintain contact with the TF on the right flank. Obstacles are constructed in as much depth as possible. When enemy forces attempt to penetrate this area the task force defeats those enemy units it can and delays those it cannot. (Defense and delay techniques are described in FM 71-1.)

A constant flow of accurate reports from team to task force allows the task force commander to see the developing battle and inform the brigade commander of the situation in a timely fashion. The task force commander maneuvers his teams to stay in front of the enemy.

Example 4 - A TASK FORCE DELAY IN AN ECONOMY OF FORCE AREA (cont)

After a series of enemy probes all along the brigade front, TF 3-79 Mech is attacked on the left and center by substantial forces. Company teams ward off the enemy initially but soon are in danger of being outflanked by enemy infantry moving through woods and rough terrain. Because the enemy is pushing along three avenues, the task force commander cannot adequately concentrate against any of them. He orders all teams to delay forward of Line CAT. Teams comply and soon report the flow of the battle. Upon receiving the situation report from TF 3-79 Mech, the brigade commander sends the following message:

"A fresh enemy regiment is moving toward your sector. Task Force 2-13 Armor will move to block. They will occupy your battle positions 43 and 44. You must delay the enemy forward of Phase Line TIGER for two hours. I requested attack helicopters, but they are not available at this time."

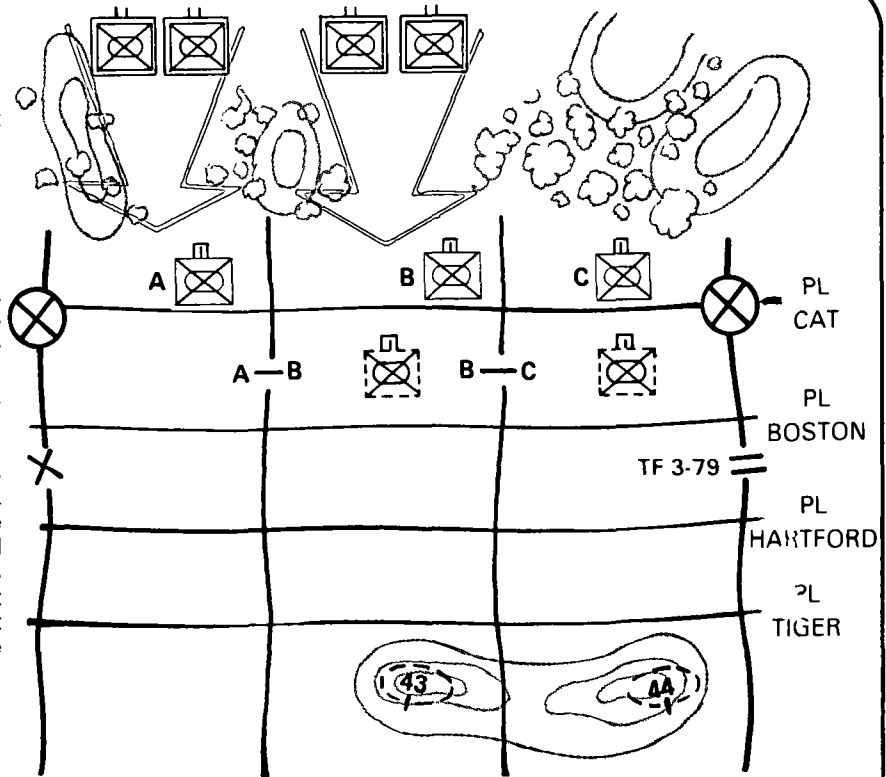


TF 3-79 Mech now must provide time for the brigade commander to concentrate against the buildup of enemy strength in their sector. The task force commander reallocates forces to better concentrate against the main enemy forces now in contact. He screens the right portion of the sector with one reinforced platoon and the scout platoon. (Air cavalry would be very useful, but is not available.) Using secure radio, he assigns two extra time delay lines to his units—delay lines Boston and Hartford.

Enemy forces continue to advance against TF 3-79 Mech. Teams engage them at maximum range with direct fire weapons and use indirect fires at every opportunity. Due to rough terrain, the enemy has difficulty in making rapid maneuvers. In open areas he is under direct fire; in woods he

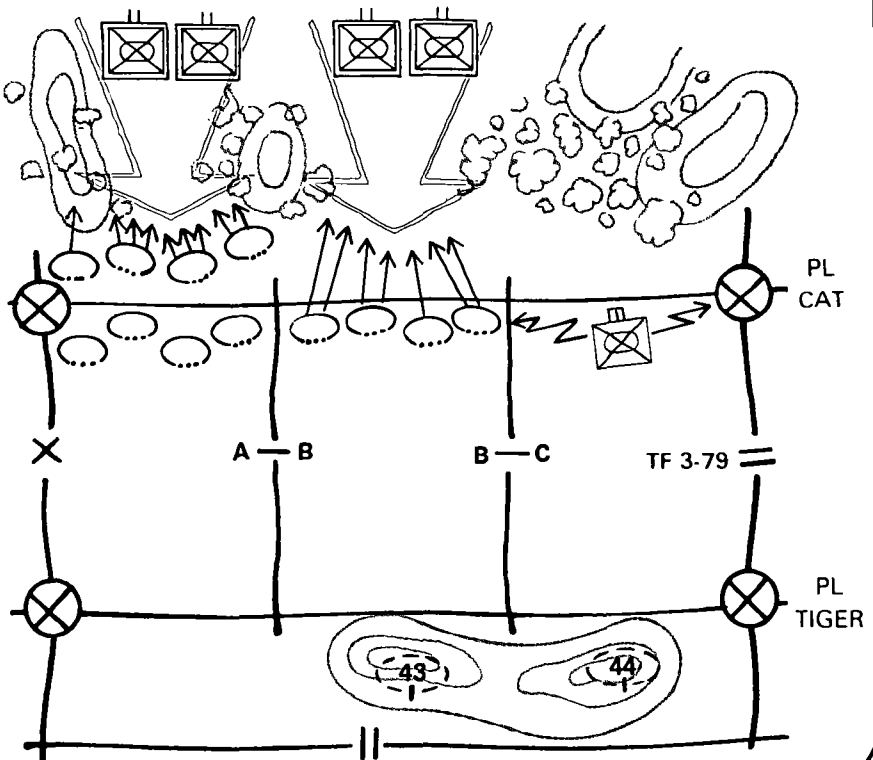
Example 4 - A TASK FORCE DELAY IN AN ECONOMY OF FORCE AREA (cont)

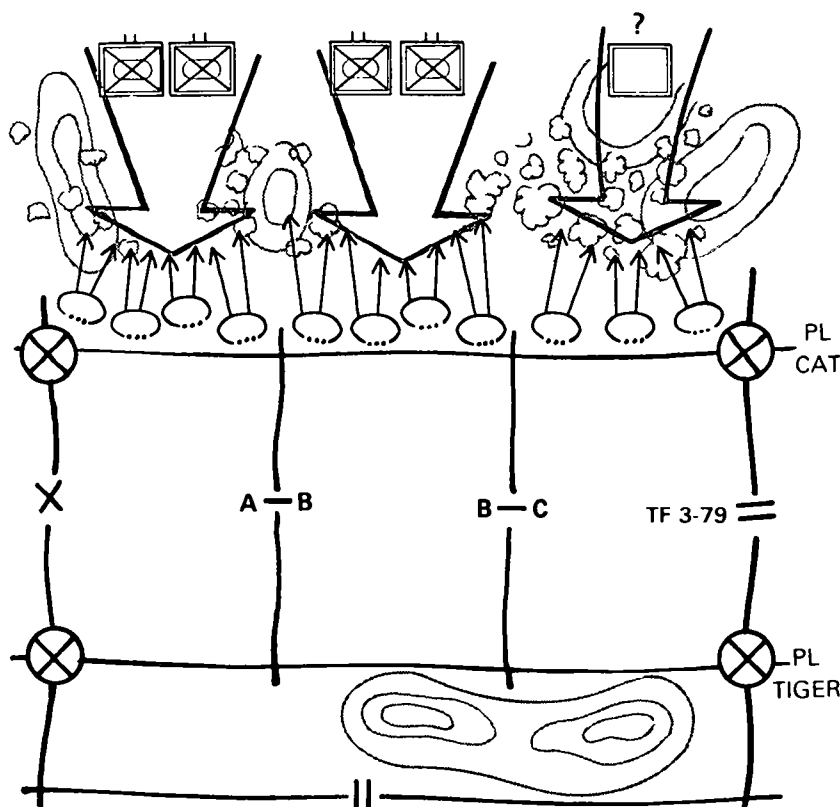
encounters mines, abatis, tree blowdown, and artillery fire. By 1430 the enemy has four battalions preparing to assault positions along Line CAT. Team commanders use fire and maneuver to reposition platoons, wear down the enemy, and maintain contact. The task force commander controls the operation by phase lines. His units are spread very thinly and are outnumbered by 4 or 5 to 1. He must keep the enemy from outmaneuvering him. Without a reserve, he has no ready reaction force to assist in disengaging platoons. He must depend on team commanders to out-think the enemy and stay one move ahead. Team commanders control the movement of platoons from their battle positions, but do not cross the phase lines without permission from the task force commander.



At 1440 the situation is as shown.

TF 2-13 Armor is still about 40 minutes away from battle positions 43 and 44. Company C, with one mech platoon, a TOW section and the scout platoon, is screening on the right, and has no enemy contact except for occasional artillery fire. Team B is in position along Line CAT and is engaging approximately two battalions to its front. It has priority of artillery fire at the moment. Team A is in contact with approximately two battalions forward of Line CAT and is in danger of being outflanked in Team B's sector. Commander, TF 3-79 Mech, orders Team A to reposition behind Line CAT. The team commander reports he is unable to do so because of heavy enemy pressure. The task force commander changes fire priority. Team A, with the help of the additional fires, can move again, and avoids the danger of being outflanked.



Example 4 - A TASK FORCE DELAY IN AN ECONOMY OF FORCE AREA (cont)

At 1515, TF 3-79 Mech is generally on line just forward of Line CAT. The terrain is somewhat more open here, has fewer natural obstacles and, because it is deep in the brigade sector where less preparation has been accomplished, has fewer man-made obstacles. Enemy pressure is heavy all along the front. Company C is now in contact with a force of unknown size. TF 2-13 Armor has been held up by rubble, fallen trees, and enemy air and artillery strikes. It is still 30 minutes from assigned positions. The brigade commander sends a fragmentary order to TF 3-79 Mech:

"Hold enemy forward of TIGER for at least 45 more minutes. You have priority of artillery fire. Tactical air support is on the way."

The task force commander sends instructions to Teams A and B. Each team repositions to face its enemy and halt his forward progress. The battle increases in intensity as enemy forces deploy once more and start to assault team positions along Line CAT. As the enemy assault reaches Dragon range, it is subjected to TOW, Dragon, tank, mortar, artillery and machinegun fire. The promised aircraft arrive and strike the enemy formations. The four attacking battalions have been reduced to six or seven reinforced companies. Their advance stalls.

This example illustrates these main points:

- Task Force 3-79 Mech succeeded in delaying this enemy force until the brigade commander could deal with it.
- The commander accepted higher risk to provide time for maneuver of other forces.

When the timetable had to be adjusted, the task force defended, though the teams might have been destroyed.

- Through actions which caused the enemy to advance over obstacles and rough terrain, repeatedly deploy for assault, suffer heavy losses and grow weaker in the process, TF 3-79 Mech accomplished its mission.

Example 5 - PASSAGE OF COVERING FORCES INTO THE MBA

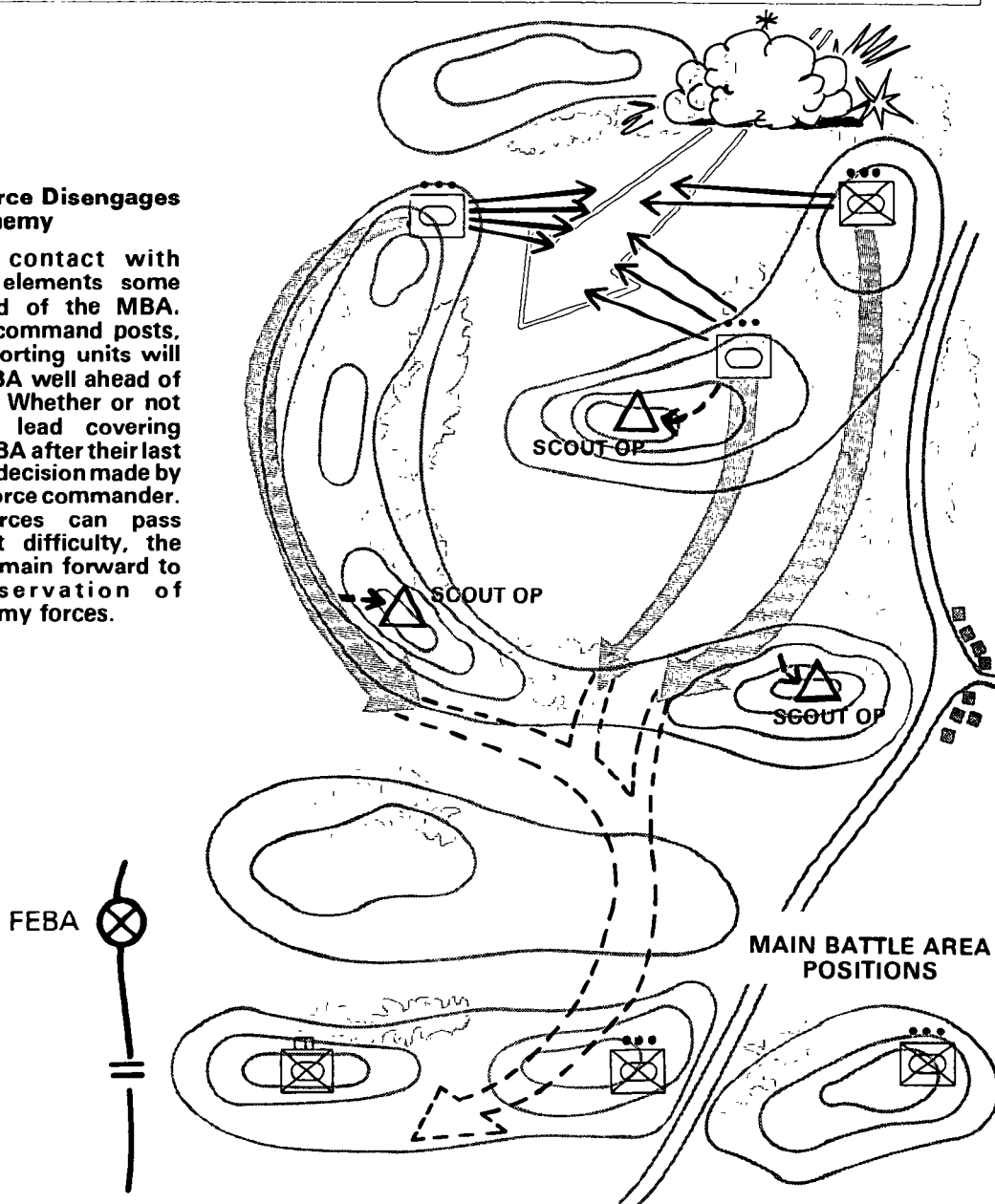
By the time the combat elements of the covering force pass through the forward MBA elements, they should be under control of the MBA brigade. In those cases where the covering force was originally established as a separate force, it will have been passed to control of MBA brigades while still fighting forward of the MBA. Contact with

the covering force elements which will pass through the task force sector is initially made by the forward security force (normally the scout platoon, which may be reinforced if necessary). The forward security force initiates coordination for passage of lines but usually cannot confirm all details until covering forces maneuver closer

to the MBA. It is undesirable to commit covering forces to specific passage points while they are still fighting a great distance away, for their later maneuver would be restricted. MBA forces will be improving their defenses and adding obstacles during this time.

☐ **Covering Force Disengages From The Enemy**

Scouts make contact with covering force elements some distance forward of the MBA. Covering force command posts, trains, and supporting units will pass into the MBA well ahead of maneuver units. Whether or not scouts actually lead covering forces into the MBA after their last engagement is a decision made by each MBA task force commander. If covering forces can pass through without difficulty, the scouts should remain forward to continue observation of approaching enemy forces.



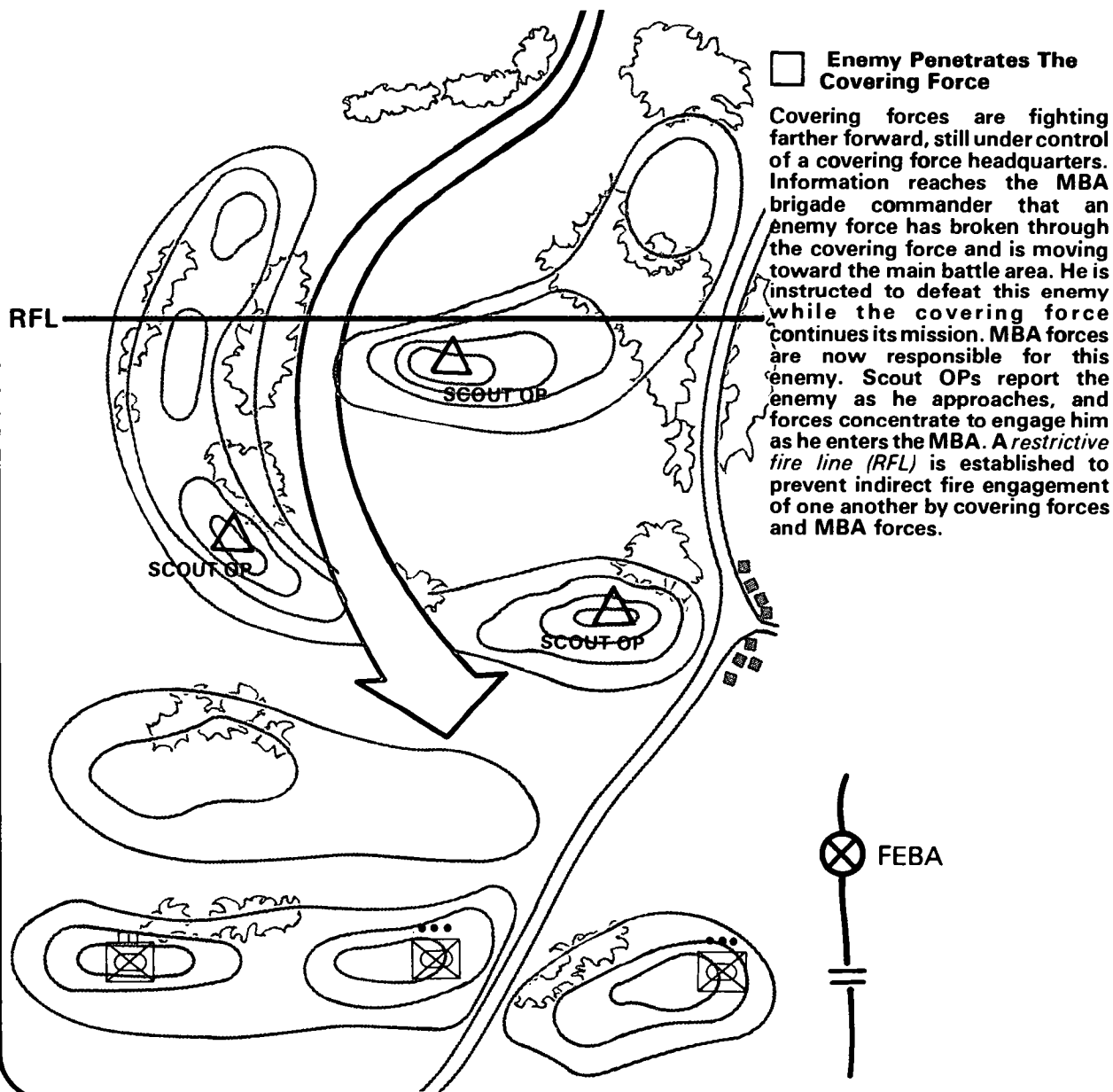
Example 5 - PASSAGE OF COVERING FORCES INTO THE MBA (cont)

☐ **Covering Force Cannot Disengage Prior to Arrival At MBA**

Scouts make contact with covering forces as before. In this case, covering forces and enemy forces arrive at the FEBA at the

same time. Covering forces cannot pass into the MBA ahead of the enemy. If covering force units cannot easily veer aside to pass into the MBA in a nearby area, they may be attached to the battalion task force in the

immediate vicinity. The MBA battalion task force commander can then control the maneuver of these units, adding them to the fight or holding them out, until they are able to pass safely into the MBA.



Example 6 - DISENGAGING THE BATTALION TASK FORCE

In this example (which is not directly related to the preceding situations) the brigade commander must withdraw units from the right portion of the line of contact to concentrate against a threat on his extreme left. He must also reposition Task Force 2-80 Mech, the center of his task forces, to provide continuity of defense. At 1500 hours he orders TF 2-80 Mech to:

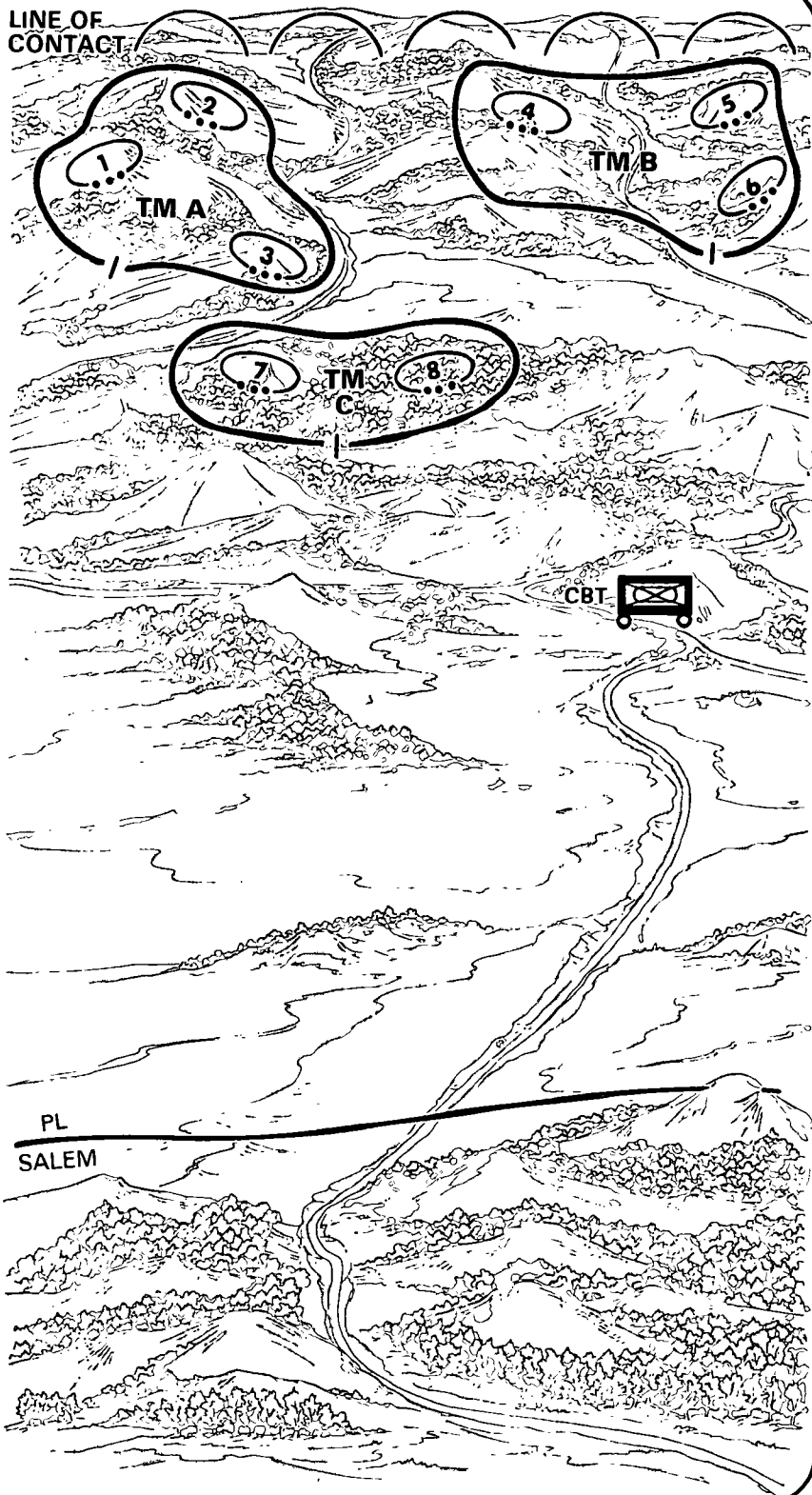
"Withdraw now to Line Salem and defend there. Brigade will not provide a covering force. Priority of fires remains with TF 2-72."

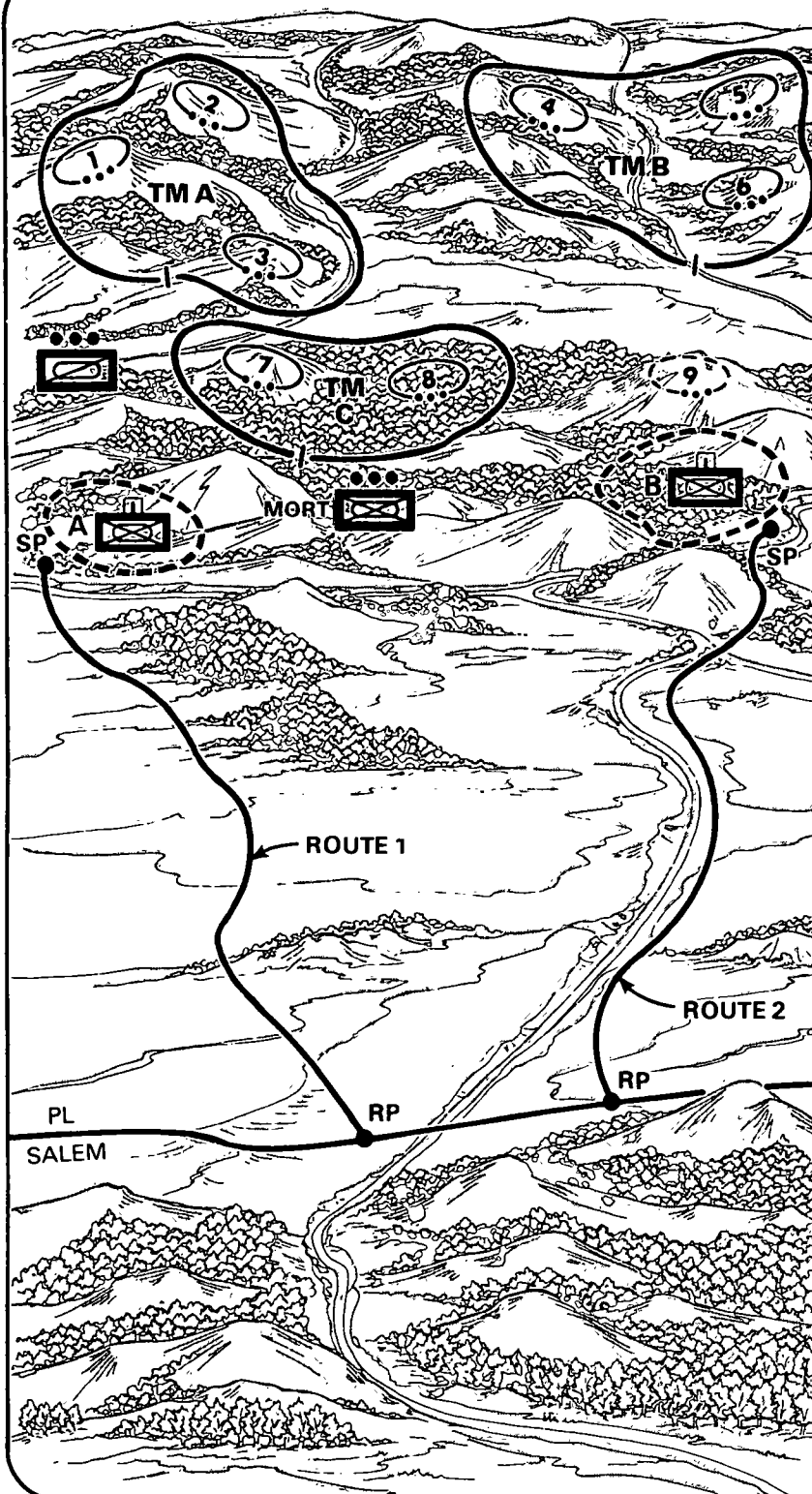
TF 2-80 Mech is in contact and under pressure. The TF commander decides to disengage and withdraw. Team C is to overwatch the withdrawal of Teams A and B. TF 2-80 Mech is currently disposed on BP 1-8.

Immediately on receipt of these instructions from the brigade, the task force commander has the S3 issue a warning order, including instructions for advance parties to proceed to the new area.

Concerned with minimizing any delays in taking up the new mission in the new area, he charges the TF XO with coordinating the occupation of the new position. He directs that the task force combat trains, expecting recovery vehicles, be moved to the new area without delay.

The commander quickly decides how to disengage the task force, how to move to the new area, and how to occupy the positions there.



Example 6 - DISENGAGING THE BATTALION TASK FORCE (cont)

He decides to use Team C, now on BP 7 and 8, as the overwatching force. He directs Team C to relocate one mechanized infantry platoon from BP 8 to 9 to be in a better position to overwatch the disengagement of Team B from BPs 4, 5 and 6. As Team B withdraws, it is to drop off a tank platoon to Team C at BP 9.

To provide for a greater long-range overwatching antitank capability, the task force commander directed that two TOW sections of the antitank platoon and one TOW section now attached to Team B, vicinity BP 5, be attached to Team C.

In order, Teams A and B will disengage. By fire and maneuver, under the overwatch of Team C, they will withdraw into the designated areas. These assembly areas are covered locations behind the overwatching force. The teams rapidly assemble and reorganize. The time spent in these assembly areas is kept to an absolute minimum.

As they assemble, the teams start the march along the designated routes to their new positions. They will occupy these and prepare for defense.

The scout platoon is now screening the task force left flank because of the enemy threat from that direction.

The mortar platoon will displace by echelon to maintain continuous support of the overwatching force.

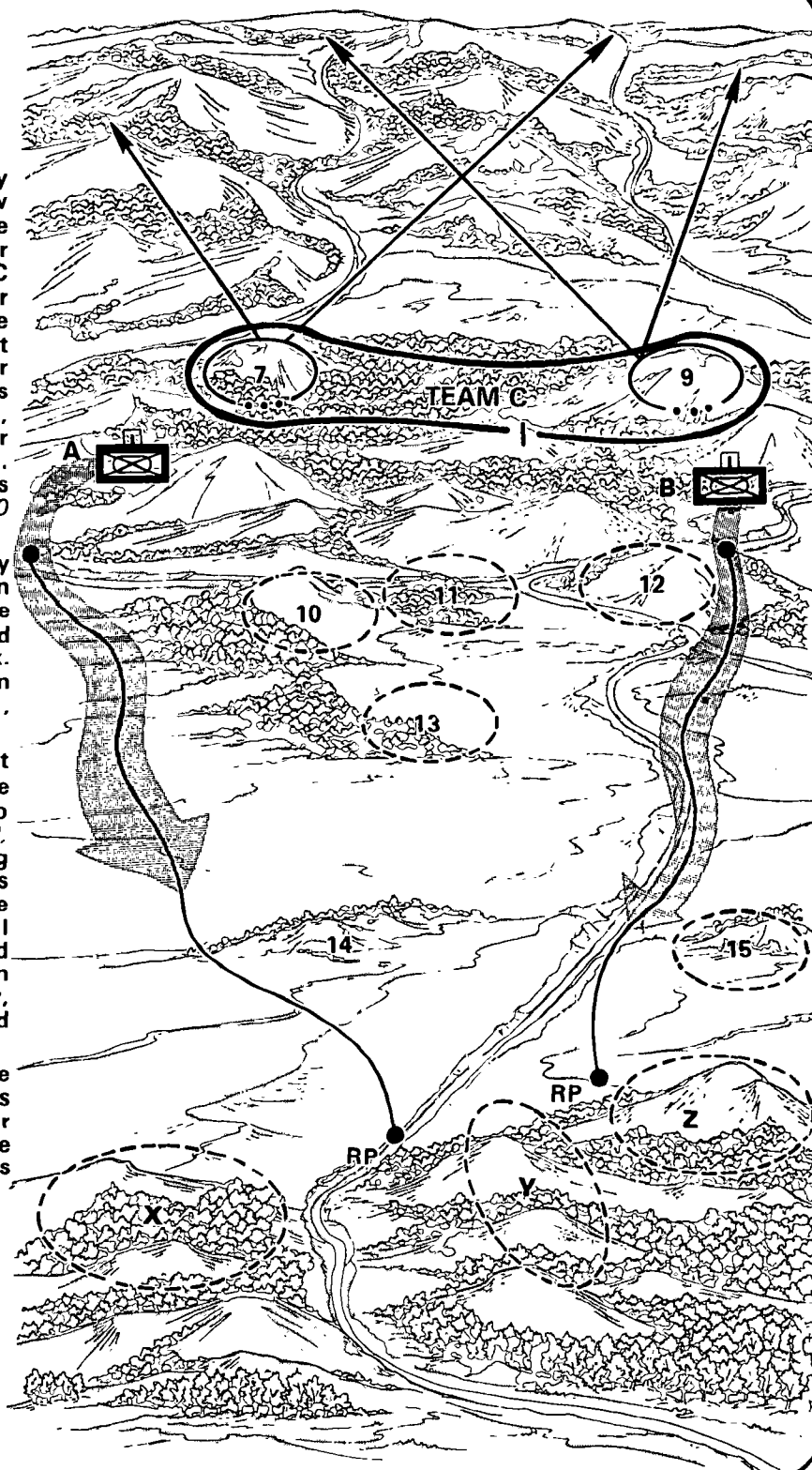
Example 6 - DISENGAGING THE BATTALION TASK FORCE (cont)

As the teams leave the assembly areas on the way to the new positions, the task force commander monitors their progress closely. Should Team C be attacked by a force too large for it to handle, the task force commander would have to assist it. In addition to arranging for fires, he could position elements of the main body (platoons, team, or the entire task force) to cover the disengagement of Team C. Toward that purpose he identifies potential battle positions 10 through 15.

If Team C were so heavily engaged it could not move, even under the covering fires of more rearward elements, he could conduct a limited counterattack. This could relieve the pressure on the overwatching force, permitting it to pull back.

As Teams A and B withdraw past BPs 10, 11, and 12, the task force commander directs Team C to start moving to BPs 10 and 12, delaying the enemy, who is trying to work his way forward. This process will be repeated as the withdrawal progresses, until Teams A and B occupy BPs X and Z, respectively. Team C will then disengage from the enemy, covered by Teams A and B, and occupy its assigned BP Y.

The withdrawal is completed; the task organization is adjusted as necessary, units prepare their positions, and the task force commander reports that he is ready.



EXAMPLE 7 - ATTACK HELICOPTERS REINFORCING A TASK FORCE BY FIRE

Attack helicopter units are designed to be employed as integral parts of a combined arms force. They are maneuverable firepower, ideally suited for situations in which rapid reaction time is important, ground forces are inadequate, or ground forces are restricted by terrain.

Using their speed, mobility, flexibility, and armor defeating firepower, attack helicopter units can quickly respond to a threat, rapidly mass firepower, and exploit enemy weakness. They attack by fire, defend by fire, or delay by fire. They cannot hold terrain like ground maneuver forces. Attack helicopter units are, therefore, integrated into the tactical plan of the ground force commander, complementing his scheme of maneuver and enhancing the capabilities of both attack helicopter and ground combat forces.

Attack helicopter units normally have a considerable mobility differential over ground combat units. They can be moved rapidly to a critical point at a critical time and be employed there in mass, striking the enemy where and when he is most vulnerable.

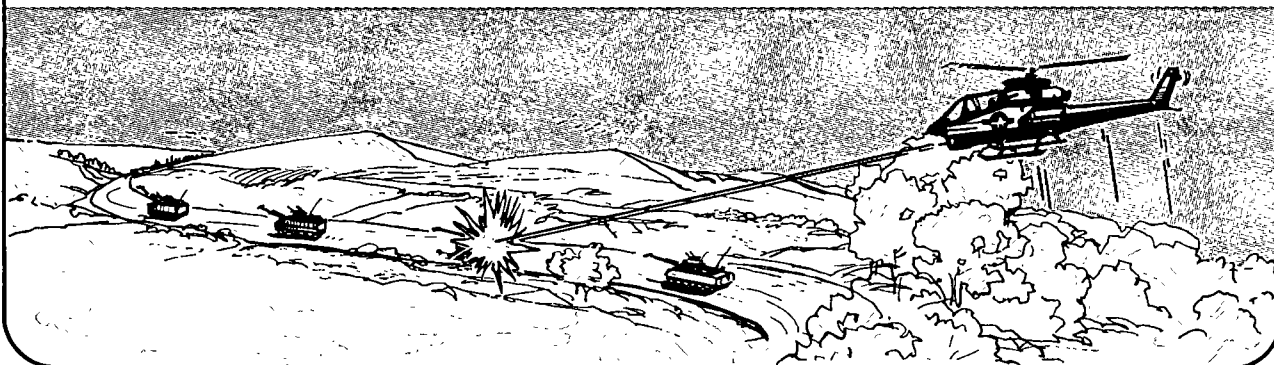
As a general rule, *attack helicopter units are not attached below division*. When it is necessary to give an attack helicopter unit to a brigade, it should be placed under *operational control* of the brigade, rather than attached to the brigade.

Attack helicopters are normally employed in mass—preferably in battalion strength but not less than company strength. Normally, an attack helicopter unit, either company or battalion, placed OPCON to a brigade is tactically employed directly under brigade control.

However, a battalion task force in heavy contact may receive an attack helicopter company which has been given the mission of *reinforcing by fire*. When reinforcing by fire, attack helicopter units attack targets within a battalion task force's battle area as directed by the ground commander. *His responsibility is for target designation only*. The AH unit commander maneuvers the unit to attack the targets.

It is inappropriate to place attack helicopter units under the operational control of ground maneuver companies or troops. When it is necessary for an attack helicopter unit to coordinate with ground maneuver companies or troops, aeroscouts do this, normally by radio.

Attack helicopter units take operational control of ground maneuver units only in severe cases where the ground unit is disintegrating under enemy pressure. And then, the control lasts only long enough to extricate the remaining ground elements, or until effective command control by the ground maneuver unit can be reestablished.



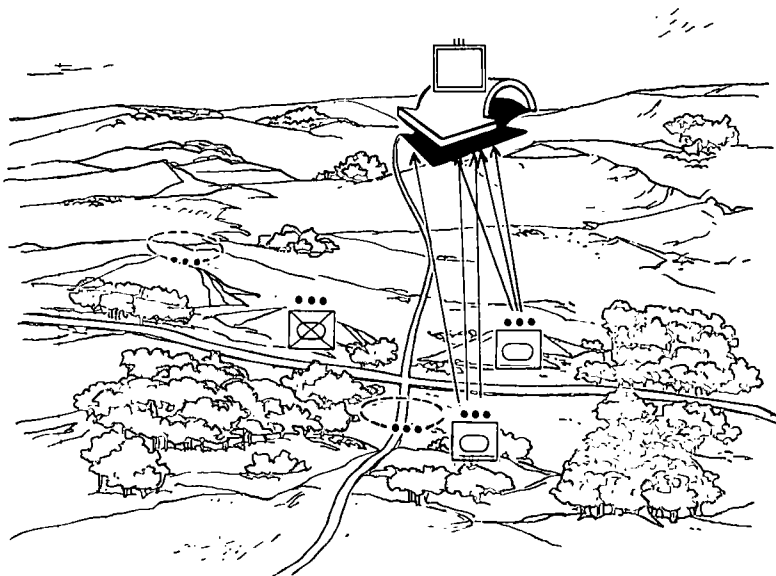
Example 7 - ATTACK HELICOPTERS REINFORCING A TASK FORCE BY FIRE (cont)

In this example TF 1-3 Armor is defending in a wide sector in the MBA. Team A is attacked in regimental strength as shown.

The task force commander requests, and receives, an attack helicopter company to reinforce the fires of his task force. The brigade commander decided *not* to employ the attack helicopter company independently in this case. Instead, he assigned it the mission of reinforcing by fire.

The task force commander is contacted by the aeroscouts of the attack helicopter company. Since he is in Team B's sector and cannot be on the scene in time, he directs the aeroscouts to proceed to Team A and coordinate directly with the team commander.

The task force commander then informs the team commander that a flight of five attack helicopters is inbound. They will arrive momentarily to engage the attacking force while the platoons



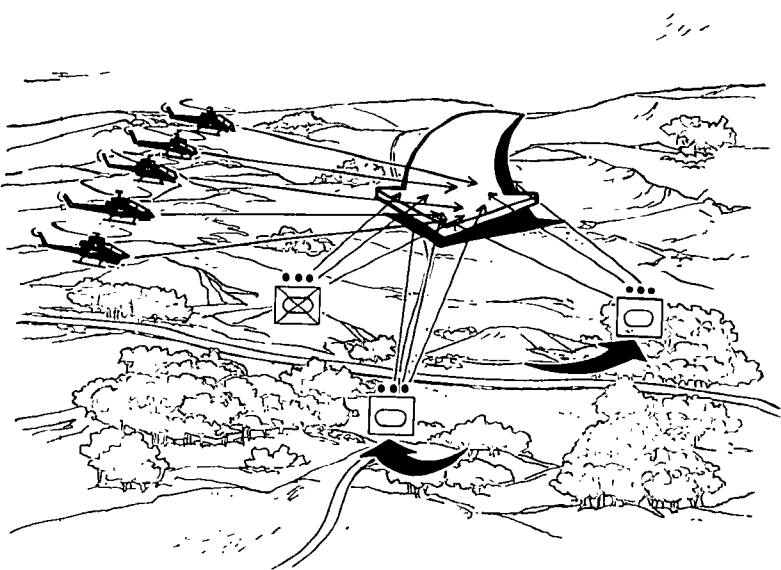
are shifting to new battle positions. Aeroscouts arrive and contact the team commander

who directs that attack helicopters engage enemy targets to the west of the road.

The attack helicopters arrive and engage targets designated by aeroscouts.

Selection of firing positions, timing for unmasking, and other tactics employed by the attack helicopters are controlled by the attack helicopter company commander. However, the ground commander (i.e., the company team commander in this case) is responsible for coordinating the fires of the ground elements with those of the attack helicopter. In this case, he uses the road to describe the principal target area to the attack helicopters.

The attack helicopter company commander rotates attack helicopter platoons into battle as necessary until the attacking



enemy force is no longer a threat. When the mission is complete, the attack helicopter company

returns to brigade (or division) control for employment elsewhere.

SUMMARY

The battalion task force must be able to wage an active defense, moving and concentrating the combined arms forces as necessary, to thwart the enemy's advance. The task force commander must be able to:

Understand the concept of the defense and the delay.
Use the inherent advantages of the defender.
See the battlefield and understand the enemy's capabilities.
Organize forces and positions to maximize his weapon systems.
Delay, when required, to show the enemy's momentum and buy time for larger units to defend or attack.
Perform missions as assigned in the covering force area, main battle area, or rear area.



CHAPTER 6

Reconnaissance and Security

OVERVIEW

SUCCESS IN BATTLE depends to a large extent on which side has more information. It is obviously easier to concentrate forces against weak points in the attack or to counter the enemy's main effort in the defense if a commander knows where the enemy is located, how many forces the enemy has, and what the enemy's potential might be. The commander seeks this combat information and intelligence through every possible source. On the other hand, he protects his unit from surprise and denies to the enemy information about the task force. The task force commander makes full use of his scout platoon, patrols, outposts, ground surveillance radar, and remote sensors for reconnaissance and security. In addition, he uses Operations Security (OPSEC) measures and insures his soldiers practice security techniques.

CONTENTS

	PAGE
OVERVIEW	6-1
SEEING THE ENEMY	6-2
RECONNAISSANCE AND SECURITY OPERATIONS	6-2
The Scout Platoon	6-2
Patrols	6-9
Ground Surveillance Radar Section	6-10
Remote Sensor Teams	6-12
OPERATIONS SECURITY (OPSEC)	6-12
Vehicle Camouflage	6-14
Light and Noise Discipline	6-14
Electronic and Communication Security	6-14
SUMMARY	6-17

SEEING THE ENEMY

The first battlefield task the battalion task force must perform is to **SEE** the enemy and the battlefield—see the battlefield better than the enemy does, so that the battalion task force has the advantage. While the battalion task force relies on the brigade and division for much of its information about the enemy and terrain, there are many things the battalion task force can do for itself to better see its piece of the battlefield. It can mount active and aggressive reconnaissance operations designed to obtain specific combat information about the enemy or terrain, and it can establish observation posts, use ground surveillance radar (GSR) and remote sensors (REMS) to provide for continuous surveillance of its piece of the battlefield.

Before or during an operation, the battalion task force commander and his staff identify specific information about the enemy and terrain that they require to better conduct the battle. This information is sometimes called *essential elements of information* (EEI).

As a general rule, EEI required for an attack are:

- Where is the enemy located and in what strength?
- Where are the enemy weak points?
- Can the enemy counterattack? If so, where, when and in what strength?
- If the enemy has emplaced obstacles, where and what type are they?

During defensive operations, most important EEI are:

- Where will the enemy make his main effort? In what strength? When?
- Where will he make his secondary effort? In what strength? When?

Once the EEI have been determined, the battalion task force S2 and S3 determine how best to obtain the information that is not otherwise available from higher headquarters. Some combat information can be obtained by directing a company team to

send out a patrol; other combat information can best be obtained by the battalion task force scout platoon or by the battalion task force ground surveillance section.

The task force S2 makes a reconnaissance and surveillance plan. He uses battalion task force units to obtain as much information as possible. Frequently, the brigade will be able to provide helicopters for use by the commander and members of his staff to better see the terrain before the fight begins. Combat information and intelligence required by the battalion task force, but which cannot be obtained by task force units, are requested from divisional or corps units specially organized to see the battlefield. How to obtain support from these units is described in Chapter 7, *Combat Support*.

RECONNAISSANCE AND SECURITY OPERATIONS

In order to see the enemy, the battalion task force must conduct active reconnaissance and security operations.

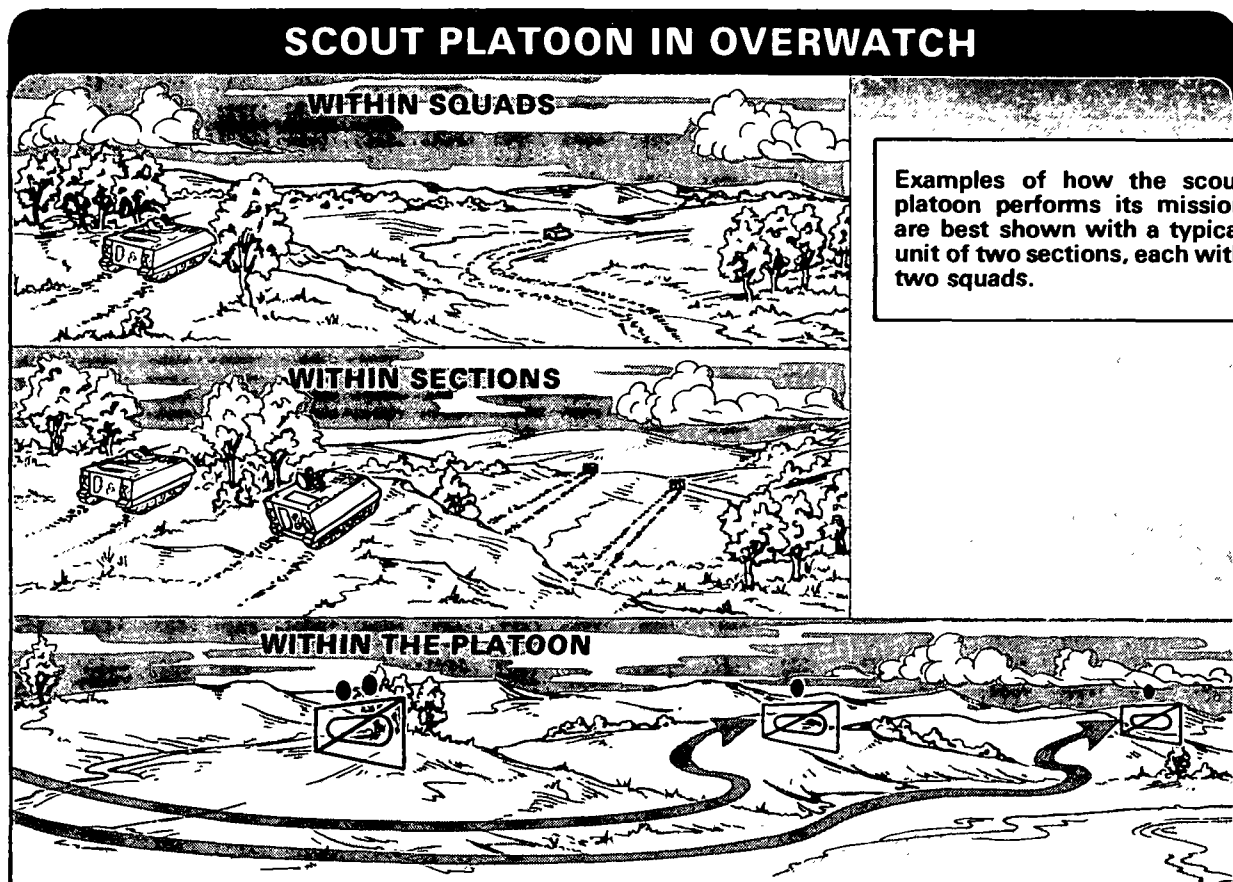
Reconnaissance operations obtain information about the enemy and terrain over which the battalion task force intends to move and to fight.

Active security operations protect the battalion task force against surprise by an enemy force. These include screen and, sometimes, guard operations. A scout platoon most often conducts reconnaissance and security operations, but maneuver platoons can also be assigned these missions. When this is the case, they use the same techniques as the scout platoon.

THE SCOUT PLATOON

Scout platoons are generally organized the same in mechanized infantry battalions and tank battalions. However, a modified table of organization and equipment (MTOE) is in effect for various units and these changes may reflect differences in capabilities. Although the scout platoon is generally

equipped with antitank weapons, *it should not be employed as an antitank platoon*—the scout platoon's primary mission is seeing the battlefield.



A scout platoon moves about the battlefield using terrain, overwatch, and, when required, suppression. (See FM 71-1 for details on movement techniques.)

Reconnaissance Operations gain information about the terrain and the enemy. Usually the task force S2 coordinates requirements with the S3 and supervises the operation. Leaders prepare for the operation by using troop leading procedures similar to any operation. Fire support, recognition signals, and contingency plans (e.g., what to do in event of contact) must be planned. The

scout platoon uses stealth whether the operation is mounted or dismounted.

Reconnaissance operations are termed **route, zone, and area**. The techniques of reconnoitering are generally the same for all three; the mission indicates the type of information sought.

Route reconnaissance seeks detailed information about specific routes: road and bridge classification, obstacles, chemical or radiological contamination, enemy, and terrain which if occupied by the enemy would affect movement. The scouts go to

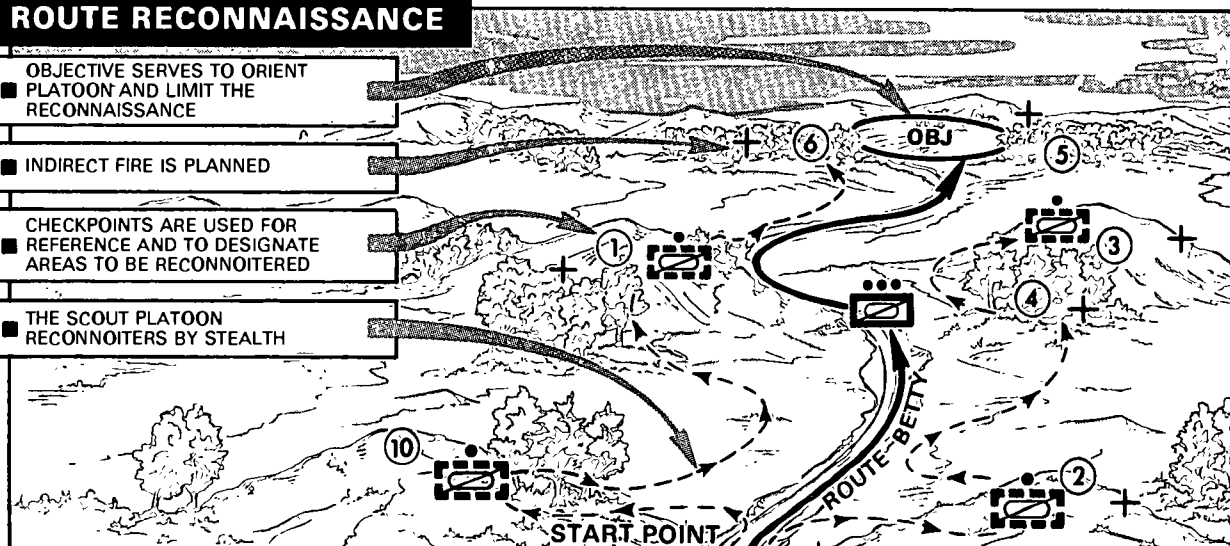
ROUTE RECONNAISSANCE

OBJECTIVE SERVES TO ORIENT PLATOON AND LIMIT THE RECONNAISSANCE

INDIRECT FIRE IS PLANNED

CHECKPOINTS ARE USED FOR REFERENCE AND TO DESIGNATE AREAS TO BE RECONNOITERED

THE SCOUT PLATOON RECONNOITERS BY STEALTH



dominating terrain out to 3,000 meters from the route, looking for enemy positions and, particularly, antitank locations. Usually, the scouts remain mounted. The number of routes the platoon can cover depends on the routes' length and nature and the enemy situation.

When contact is expected or likely, or when the route is long and through difficult terrain, the entire platoon may be required. The platoon could reconnoiter as many as four routes (one per squad) if the routes are short and enemy contact is unlikely.

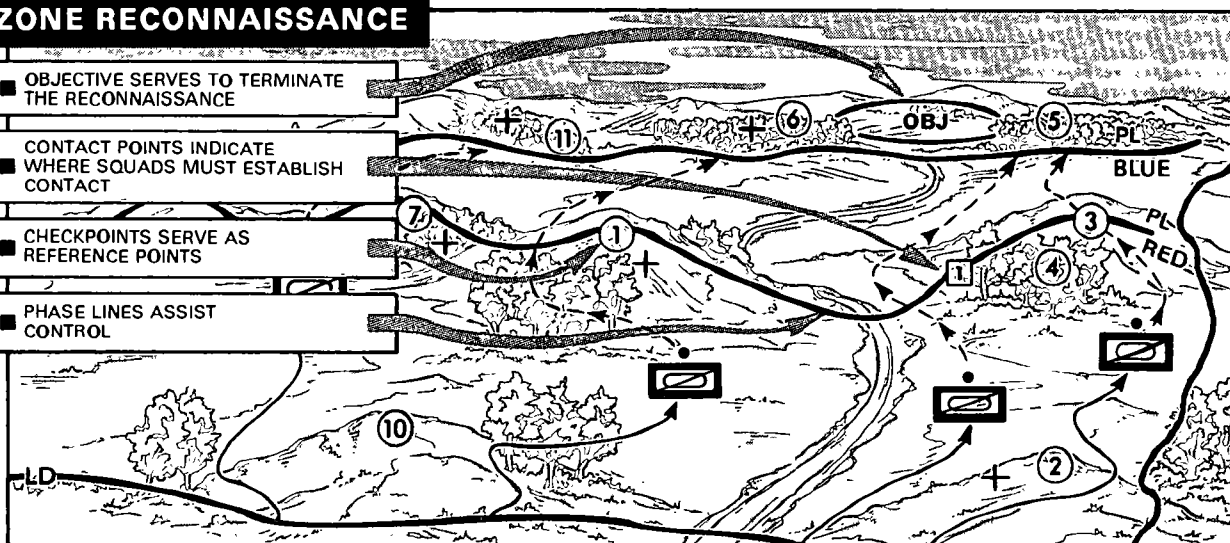
ZONE RECONNAISSANCE

OBJECTIVE SERVES TO TERMINATE THE RECONNAISSANCE

CONTACT POINTS INDICATE WHERE SQUADS MUST ESTABLISH CONTACT

CHECKPOINTS SERVE AS REFERENCE POINTS

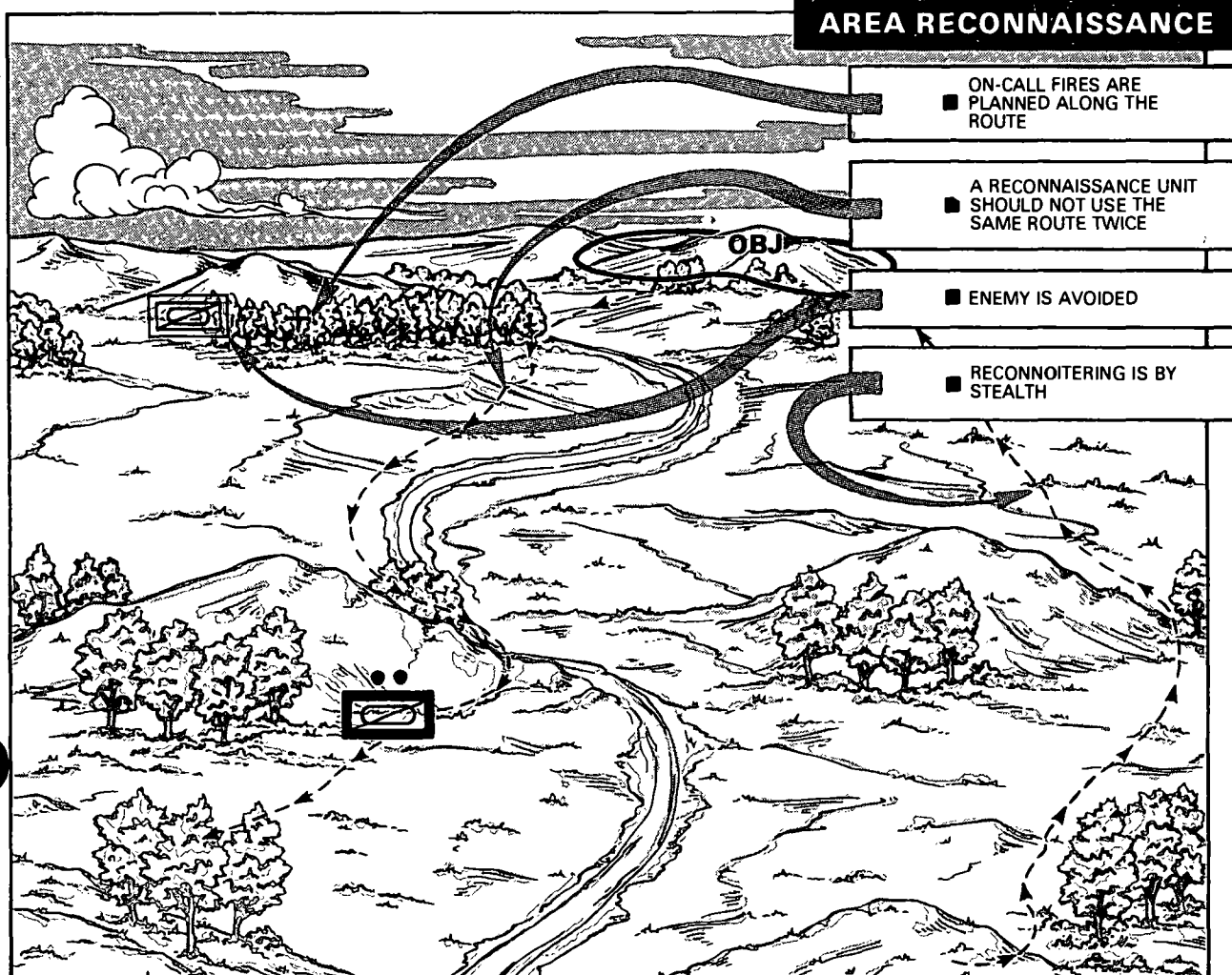
PHASE LINES ASSIST CONTROL



Zone reconnaissance is the detailed search of an entire zone defined by boundaries. Its purpose is to obtain detailed information on all enemy, terrain, and routes within the zone. If time is not available to conduct a detailed zone reconnaissance, scouts may conduct a multiple route reconnaissance in zone. The width of a zone a scout platoon is capable of reconnoitering depends on the factors of mission, enemy, terrain, and troops

available (METT). A zone reconnaissance mission is normally assigned when the enemy situation is in doubt or information on cross-country mobility is desired. The zone is defined by lateral boundaries, a line of departure, and objective. The objective provides a termination point for the mission and may or may not be occupied by the enemy. A phase line may also be used as a termination point.

AREA RECONNAISSANCE



Area reconnaissance is conducted to obtain information concerning a specified area, such as a town, ridge line, woods, or other feature critical to operations. *The unit should be told specifically what they are looking for and why*; for example, the disposition and strength of an enemy force located in a town. The area is designated with a boundary line encircling the area. It differs from zone reconnaissance in that the unit moves to the area to be reconnoitered by the most direct route, avoiding enemy contact and reporting any enemy encountered en route. Once in the assigned area, the unit makes detailed reconnaissance using zone reconnaissance techniques. The return route should not be the same as the outgoing one.

Security Operations protect the battalion task force from tactical surprise. To accomplish their mission, security forces must find the enemy before the enemy finds the battalion task force. When done properly, security operations provide the battalion task force commander sufficient time to move to concentrate against the enemy force on terrain which gives the advantage to the battalion task force.

Prior to enemy contact, a security force avoids enemy detection. Once contact is made, the security force may or may not fight, depending on its mission. Security operations (**screen** or **guard**) are planned and conducted under the staff supervision of the S3, who coordinates with the S2 for information on enemy activity.

SCREENING MISSION

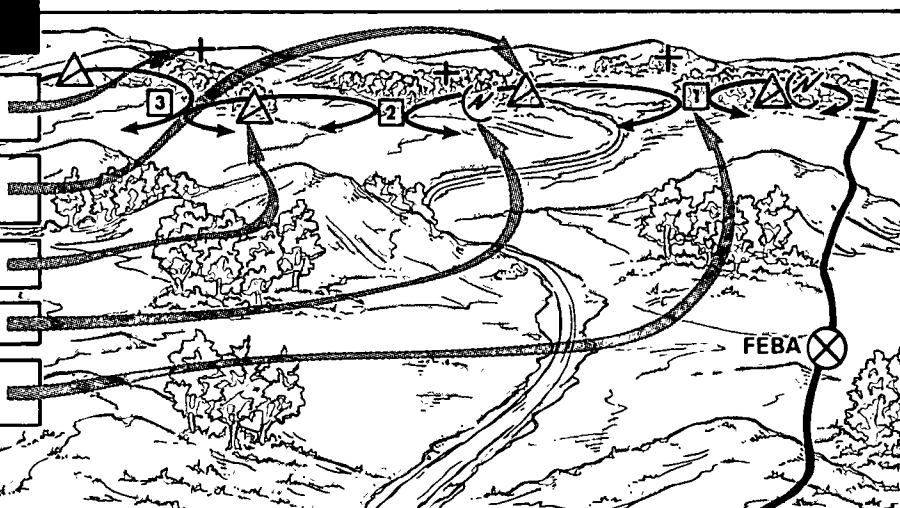
■ OPs MAY ADJUST FIRES ON APPROACHING ENEMY

■ OPs MONITOR AVENUES OF APPROACH

■ PATROLS COVER DEAD SPACE

■ GSR INCREASES CAPABILITY

■ OPs MAKE CONTACT AT CONTACT POINT



A screen is employed to give early warning of the presence of enemy forces. Screening forces usually cover a wide area and *cannot concentrate sufficient force to delay the enemy*. A screening force fights only for self protection, or within its capability to deny enemy reconnaissance units close-in observation of the main body.

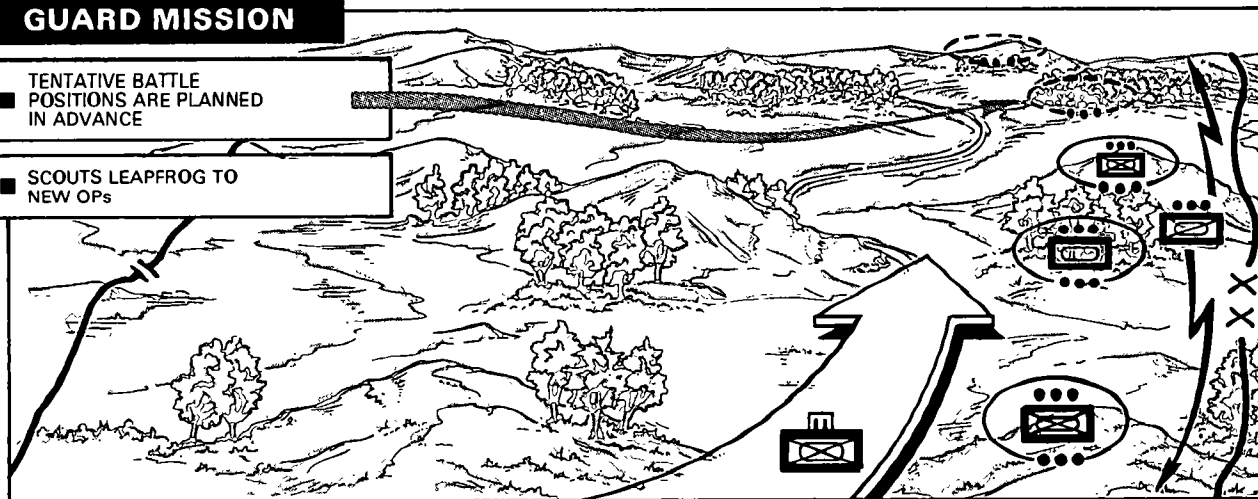
A screen is a series of observation posts (OP) overlooking enemy avenues of approach and areas between them. Patrols are used to cover dead space and make contact in areas between OPs. Once contact with the enemy is

made, the screening force withdraws on order, maintaining visual or electronic contact with the enemy, and reporting his movements. The scout platoon is capable of occupying four OPs for extended periods and eight OPs for shorter periods. It may be necessary to reinforce the scout platoon to increase the number of OPs when visibility is limited due to darkness, weather, or extremely broken or heavily vegetated terrain. Screening forces can use ground surveillance radar and remote sensors to increase surveillance capability.

GUARD MISSION

■ TENTATIVE BATTLE POSITIONS ARE PLANNED IN ADVANCE

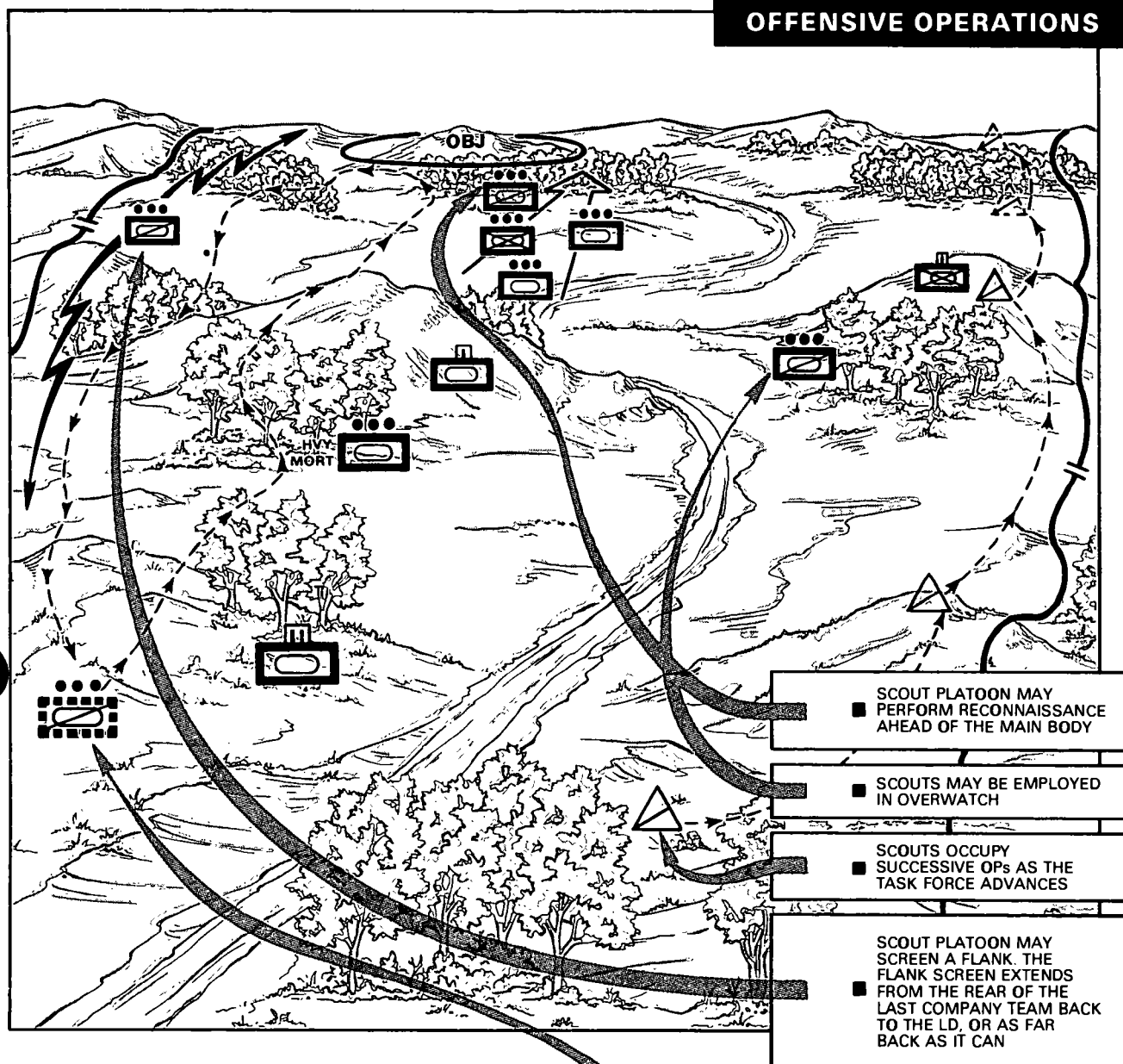
■ SCOUTS LEAPFROG TO NEW OPs



Guard missions require the unit to give early warning and to *delay the enemy* in order to give the main body time to react to an enemy threat. Because larger forces are required to conduct guard operations, the

scout platoon only participates in guard operations as part of a larger force. The scout platoon normally screens forward or to the flank of a guard force.

OFFENSIVE OPERATIONS



When preparing for offensive operations, the scout platoon can be used to reconnoiter assembly areas and routes, the terrain over which the battalion task force intends to fight, and, if possible, the objective area. When moving to contact, scouts screen a flank or reconnoiter ahead of the task force. During an attack, scouts are used to screen a flank or maintain contact with an adjacent unit. (Situations in Chapter 4, *Offensive Operations*, show typical employment of the scout platoon.)

DEFENSIVE OPERATIONS

THE SCOUT PLATOON SCREENS FORWARD OF THE FEBA TO GIVE EARLY WARNING OF ENEMY ADVANCE AND AREA OF CONCENTRATION

THE SCOUT PLATOON IN THE MBA MAY ASSIST OR GUIDE THE PASSAGE OF THE COVERING FORCE OR REMAIN FORWARD IN VISUAL CONTACT WITH THE ENEMY

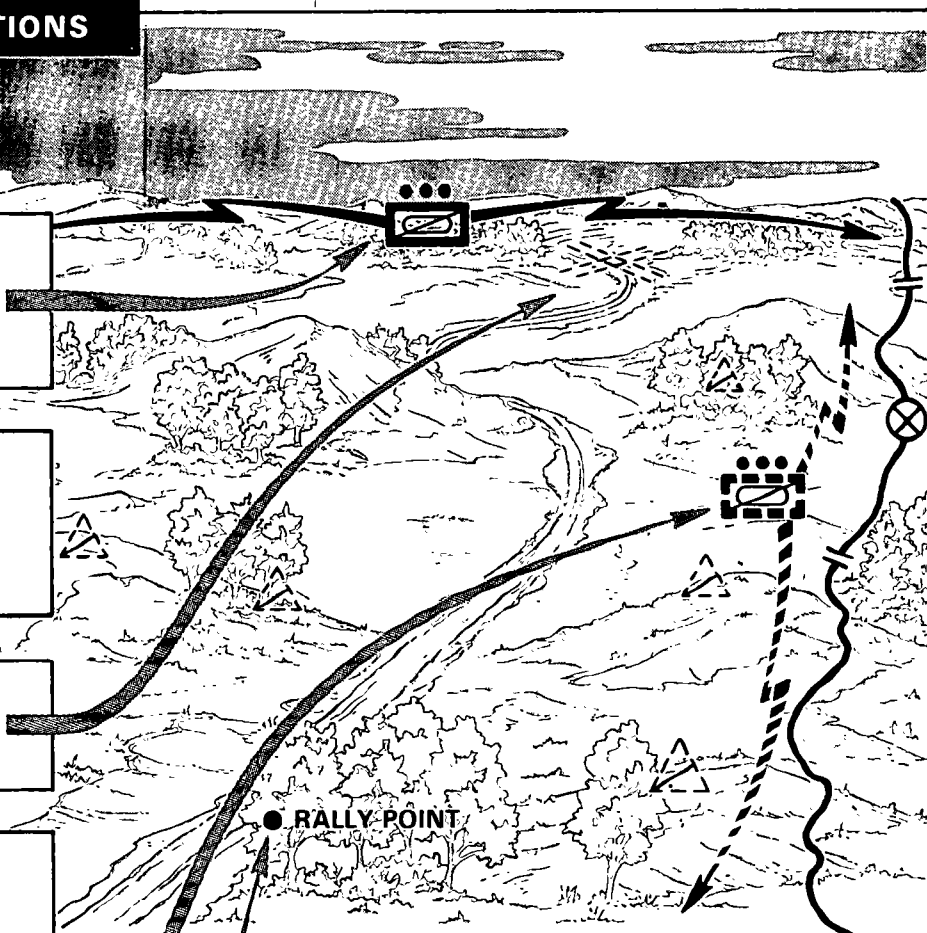
THE SCOUT PLATOON MAY EMPLACE LIMITED OBSTACLES AND DEMOLITIONS

THE SCOUT PLATOON SCREEN IS REINFORCED BY PATROLS AND OPS FROM THE COMPANY TEAMS

AFTER WITHDRAWAL, THE SCOUT PLATOON MAY SCREEN A FLANK, OR OCCUPY OPS IN DEPTH

IT MAY HAVE AN ON ORDER MISSION TO RE-ASSEMBLE AND ACT AS A RESERVE

THE SCOUT PLATOON OF A COVERING FORCE UNIT MAY DO ALL OF THIS. PLUS, IT MAY PRECEDE THE MAIN BODY TO THE MBA TO CONDUCT LIAISON, ASSIST AND GUIDE THE PASSAGE OF THE COVERING FORCE



When preparing for defensive operations, scouts are most often used to screen forward of the battalion task force sector and establish contact with the enemy force. The platoon can be augmented with ground surveillance radar, remote sensors, and additional infantry tanks and ATGM. Once contact is made, scouts are withdrawn and used to screen a flank or man OPs within the sector. If enemy contact is lost, scouts can be used to find the enemy.

When the battalion task force is preparing for operations in the main battle area (MBA), scouts can be used to make contact with withdrawing covering force units, and to guide those units to passage lanes through the MBA. Should the need arise, the scout platoon can be used as a small reserve. *This mission should not be routinely given to the platoon because such a mission would detract from more important tasks.*

The scout platoon can also be used to:

- Screen between battle positions
- Conduct liaison
- Provide contact parties
- Act as a quartering party
- Provide traffic control and road guides
- Conduct limited pioneer and demolition work
- Conduct chemical detection and radiological monitoring and survey operations
- Participate in area damage control operations
- Conduct patrols
- Establish a roadblock
- Establish observation posts

PATROLS

Reconnaissance patrols can be used to collect information and check the accuracy of previous information. Patrols can have area, zone, or route reconnaissance missions. They may perform surveillance, establish contact with adjacent units, and monitor gaps between units. Combat patrols may be used to raid an enemy OP or position, or to ambush an enemy patrol.

Patrols are normally described as short-range or long-range, depending on how far forward of friendly forces the patrol will operate. The battalion task force most often employs short-range patrols, while the division or corps employs long-range patrols. From time to time, the battalion task force may support divisional long-range patrols operating in the battalion task force area of operations.

The battalion task force may decide or be directed to conduct a patrol. In either event, the battalion task force S2 makes a task force reconnaissance patrol plan which includes

all patrolling planned in the task force area of operations. In the case of combat patrols, the battalion task force S3 plans and coordinates the operation. Once requirements have been determined, the S2, after coordinating with the S3, determines what unit or units will conduct patrols. *The S2 also coordinates his plan with the fire support officer (FSO) to insure that the presence of patrols in potential target areas is known.* Within the battalion task force, the scout platoon can be used for patrols, or a company team can be tasked to send out a patrol.

When a company team initiates a patrol, the company team commander reports his plans, to include time of departure, route, and expected time of return to the battalion task force. If the S2 does not personally debrief the patrol, the information gained is passed to him.

For further detail on this subject, see FM 7-10, *The Light Infantry Company*.

GROUND SURVEILLANCE RADAR SECTION

Ground surveillance radar can be used during most conditions of visibility. It can be of significant assistance when visibility is limited by darkness or other conditions. The battalion task force GSR section is normally organized with four radar teams which can be used to:

- Search enemy defensive positions, avenues of approach, possible enemy attack positions, and assembly areas; and report location, size, composition, and activity of the enemy.
- Monitor point targets such as bridges, defiles, and road junctions; and report the number and type of targets and direction of movement through the point.
- Survey areas for enemy activity after nuclear and non-nuclear fires, to aid in determining the effects.
- Assist in the control of units during limited visibility operations by monitoring course headings.
- Provide a means of detecting friendly units or patrols passing into the task force area during periods of radio silence. GSRs detect motion, so identification must be by pre-arranged motion.
- Determine range.
- Increase fire support effectiveness. When targets have been detected with reasonable certainty by radar, fire support means may illuminate or take targets under fire.

In order for radar teams to provide good coverage, it is important that they understand the mission, scheme of maneuver of the supported unit, and the most likely targets expected in the area of operations. This assists operators in interpreting the signals they receive. Teams must then be assigned a specific sector of surveillance, the desired degree of overlapping coverage, and frequency of coverage. To prevent detection by enemy direction finding equipment and to prevent jamming, operators turn on equipment only when needed.

The battalion task force S2 advises the commander on where and how ground surveillance radar can best be employed to support the scheme of maneuver. Avoid a pattern of preference in selecting radar sites to keep enemy from successful direction finding. Once this has been determined, the S2 assigns missions to the ground surveillance radar section. The task force S2 assigns areas and methods of search and locations when GSR is retained in general support of the battalion task force. Each team reports information to the S2 who passes it to subordinate units and to the brigade.

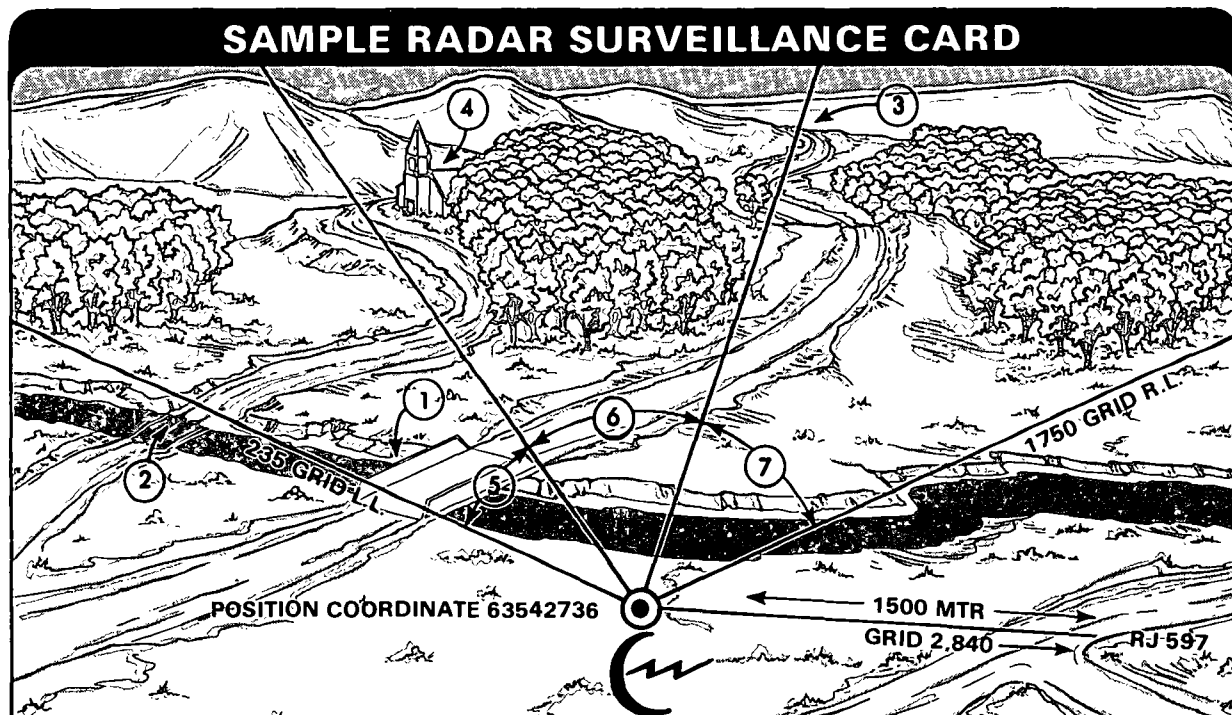
For most operations, it is better to place GSR teams in direct support of company teams or to attach them to company teams. When this is done, areas and method of surveillance are determined by the supported company team commander. In the case of direct support, the GSR team chief positions his radar where it can best support the company team. When a GSR team is attached, the company team commander may prescribe the GSR location and areas of surveillance, or they may be directed by battalion task force S2.

Information must be reported by the most secure means. When operating close to the supported units, messengers or wire can be used. When this is not possible, or information requires immediate action by the supported unit, or when no other communication means is available, radio is used.

Ground surveillance radar is usually employed mounted but may be employed from ground mounts when operating with dismounted troops. Radars should be positioned on terrain which dominates the area to be covered and which is relatively free of ground clutter (buildings, trees, or other objects) which can distort the radar beam and result in inaccurate information. Locations should be near the supported unit and have covered and concealed routes to and from the position. Forward slopes of radar sites must be covered by other observation means since they will be dead space to the radar. GSR

teams displace only on order of the GSR section leader or supported unit commander.

When time permits, alternate and supplementary positions are selected and prepared. Radar surveillance cards are prepared by the senior radar operator who gives a copy to the battalion task force S2.



PRIORITY & TYPE SEARCH	RANGE		ELEVATION		AZIMUTH (MILS)	AREA (TGT) DESCRIPTION	TIME
	MIN	MAX	+				
1 MONITOR	400	600	0		825	BRIDGE	
2 MONITOR	500	700	0		125	RIVER CROSSING	
3 MONITOR	5300	5600	225		1180	HIGH SPEED ROAD AT PASS	
4 MONITOR	4800	5300	175		660	CHURCH - POSSIBLE OP	
5 SEARCH	300	3000	200	100	0 - 600	RIVER - WOODS	
6 SEARCH	250	3200	200	0	600 - 1160	RIVER - WOODS	
7 SEARCH	300	5500	250	100	1160 - 1750	RIVER - WOODS - MIL	

During offensive operations, GSR teams are employed as far forward as the situation permits and normally in pairs to permit movement by bounds. Tentative positions and routes are selected in advance from map reconnaissance. During an attack, GSR is used to screen an exposed flank or search for enemy activity forward of lead elements. GSR can also be used to search for gaps between enemy defensive positions and to cover enemy avenues of approach into the area of operations. Part or all of the section often operates with the scout platoon.

During defensive operations, GSR is employed in both the covering force area and main battle area. The GSR section is normally employed in general support of the battalion task force to screen avenues of approach and gaps between company teams and battalion task forces.

REMOTE SENSOR TEAMS

From time to time, especially during defense operations, divisional REMS teams will be placed in direct support of the battalion task force, or attached to the task force. When required, the task force requests REMS support through brigade. On other

occasions, REMS teams may operate in the battalion task force area of operations in general support of the brigade or division. When attached to or placed in direct support of the battalion task force, the battalion task force S2 designates the area to be covered by REMS. He integrates REMS coverage with other surveillance means to cover gaps, flanks, or avenues of approach into the task force area.

Whether REMS employed in the task force area of operations are in support of the task force or in general support of the brigade or division, the REMS team emplaces the sensors where they can best cover the assigned area. The *exact* location of sensor strings and fields must be reported to the area maneuver commander. He will decide to fire on any locations if convinced the activation was caused by enemy forces. The team locates where sensor signals can be monitored. Ideally, this location is the battalion task force tactical operations center (TOC). If this is not possible, they locate with a company team command post. They must have reliable communications with the supported headquarters and with agencies capable of firing on targets identified.

OPERATIONS SECURITY (OPSEC)

Throughout all the phases of an operation, every effort must be made to maintain security. Operations security is an integral part of planning and conducting unit training and combat operations at all levels of command. Simply defined, OPSEC denies

to the enemy any information pertaining to planned, ongoing, or post-operational activity.

Unit S2s and S3s work together to develop OPSEC protective measures.

STEPS IN THE OPSEC PLANNING SEQUENCE

- | | |
|--|--|
| <ol style="list-style-type: none"> 1. Determine enemy capabilities for obtaining information about the operation. 2. Determine what information obtained by the enemy can compromise the operation and when he would need the information in order to react. 3. Determine what actions taken by the battalion task force or its subordinate | <p>units prior to an operation, if known to and analyzed by the enemy, would provide him the information he needs.</p> <ol style="list-style-type: none"> 4. Determine what protective measures are necessary and where they must be implemented in order to deny him this information. |
|--|--|

Some examples of OPSEC measures are:

Physical Security—Use of security forces, barriers, and anti-intrusion devices to deny enemy access to facilities, areas, equipment, materiel, and personnel in order to protect operational information or activities.

Signal Security—Use of communications security techniques (communication codes, secure voice equipment, RTO procedures) and electronic security techniques (use of radio silence, proper positioning of radars and antennas) to prevent the disclosure of operational information.

Information Security—Security of written, verbal, and graphic information to prevent disclosure of operational information.

Tactical Deception—Actions taken to mislead the enemy on current or intended operations for a specified time period. The objective of deception is to keep the enemy *misinformed*. Deception includes all actions taken to surprise or mislead the enemy, causing him to react in a way favorable to friendly forces, or not react at all. These portray logical activities which disguise, conceal, or draw attention away from true activities. Deception operations may be directed as part of comprehensive division and corps plans, or may be part of normal task force operational procedures.

Deception includes feints, demonstrations, ruses, displays, and security operations. Activities behind friendly lines which are unusual or do not fit into the enemy's picture of friendly probable courses of action may cause the enemy to withhold combat power from a decisive point. Activities which cause the enemy to shift forces to likely areas provide the opportunity to strike him elsewhere. Deception means include:

Visual: Showing movement, equipment, activity at a believable time in a believable place. This can be actual or dummy.

Sound: Engines running, track noise, hatch closing, digging, gunfire.

Odor: Diesel fumes, cordite, cooking.

Electronic: False transmission, remote locations for radios, radar scan of areas other than those of primary interest.

These can be combined in various ways. A small force can simulate a larger one by making the noises of a larger force; having some actual positions, some dummy; raising dust clouds by dragging chains or tree branches behind vehicles; moving a force across an observable area, then returning it under cover and presenting it again and again; creating extra radio stations to simulate traffic of a larger unit; and many others. Deception actions can be as varied as the imagination of the commander and have been used throughout history. The Trojan horse caused the downfall of Troy. General Washington's army moved from Trenton to Princeton one night in early 1776 while the British sat observing his numerous campfires. General McClellan hesitated in the Peninsula Campaign of 1862 in part because of the many (dummy) "Quaker" guns and the repeated sightings of what was actually a small force marching and countermarching. The German Army held substantial forces out of the Normandy beachhead for six weeks in 1944 because they expected the notional Allied Army in Kent, England to invade near Calais. The Egyptian Army successfully massed forces on the Suez West Bank in 1973 by only *seeming* to withdraw at the end of annual maneuvers.

On the other hand, countersurveillance activities deny information about the actual location and intentions of friendly forces. The enemy also uses means to seek information about our units. He conducts patrols and uses scouts to observe us. His night observation devices, seismic intrusion devices, radar, and direction finding (DF) equipment can locate our radars and radio transmitters. Even the heat from bodies and vehicles can be detected by his thermal devices at short ranges.

The battalion task force commander and his staff primarily concern themselves with keeping the enemy from seeing the command group, tactical operations center, trains; and subordinate unit commanders use techniques described in FM 71-1, *The Tank and Mechanized Infantry Company Team*, to protect themselves from enemy surveillance. Built-up areas are good locations for the TOC and task force trains. Basements provide

good cover and concealment from enemy observation and fire. Vehicles can be hidden in garages, barns, and similar buildings. The existing hard surface roads make the camouflage of vehicle traffic patterns much easier. Windows can be covered to permit operations at night. Antennas can be sited where they are masked from the enemy but not from receiver stations. Routes of withdrawal must be carefully planned so as to avoid entrapment within the town.

When built-up areas are not available, TOC and trains can be positioned on reverse slopes and concealed from aircraft. (How to organize a tactical operations center is further described in Appendix A, *Command Control*; considerations for trains locations are further described in Chapter 8, *Combat Service Support*.)

The battalion task force, therefore, takes all measures possible to keep the enemy from seeing it. Combined with proper techniques of movement and suppression, camouflage; light and noise discipline; and using radios and other electronic devices only when necessary degrade the enemy's ability to see the battalion task force.

VEHICLE CAMOUFLAGE

Break Up the Silhouette. Natural vegetation is best for breaking up vehicle silhouettes. Tree branches can be placed on vehicles to block off sharp edges and hide distinctive features such as APC cupolas or tank guns. Camouflage must be kept natural looking. If area vegetation is green, camouflage must be replaced often. In fast-moving operations, camouflage must be adjusted as vegetation changes.

Reduce Glare. To reduce glare, vehicles are pattern-painted with drab paint. FM 5-20 contains instructions for pattern-painting vehicles.

Windshields on wheeled vehicles should be removed or tied down and covered with burlap. Enemy pilots or ground soldiers can see windshield glare for miles.

Camouflage nets can be used to hide vehicles in stationary positions. Geometric

patterns must be avoided. Vehicles should be parked to take advantage of natural concealment and shadows. Remember that shadows move as the sun or moon moves. A vehicle in shadow at 0800 may not be at 1100.

Reduce Vehicle Signatures and Noise. Vehicle signatures are dust, exhaust smoke, and tracks on the ground. Dust is reduced by route selection and speed control. Exhaust smoke can be reduced by proper maintenance and driving. To aerial observers, track patterns indicate size, location, and tactical disposition of a unit. They can be reduced by enforcing a strict movement plan. In snow or sand, track patterns should be covered. Dispersion of vehicles, troops, and command facilities will lessen the chances of aerial observation or detection by sensitive heat-seeking devices.

Armored units are naturally noisier than other units, but much can be done to reduce noise. Hatches and doors must not be slammed. Vehicles are started and moved only as part of a plan or tactical operation. Enemy observers can pinpoint type and number of vehicles by listening to starting engines, so vehicles should be started at the same time. Maintenance is performed in terrain masked areas to shield noise.

LIGHT AND NOISE DISCIPLINE

Light Discipline. During darkness, the use of light must be strictly controlled. Even filtered flashlights and burning cigarettes can be seen for great distances. Lights needed for maintenance and other activities must be shielded from enemy view.

Noise Discipline. Soldiers must talk and move only when necessary. At night, it is particularly important to talk in LOW voices and to move slowly to avoid unnecessary noise.

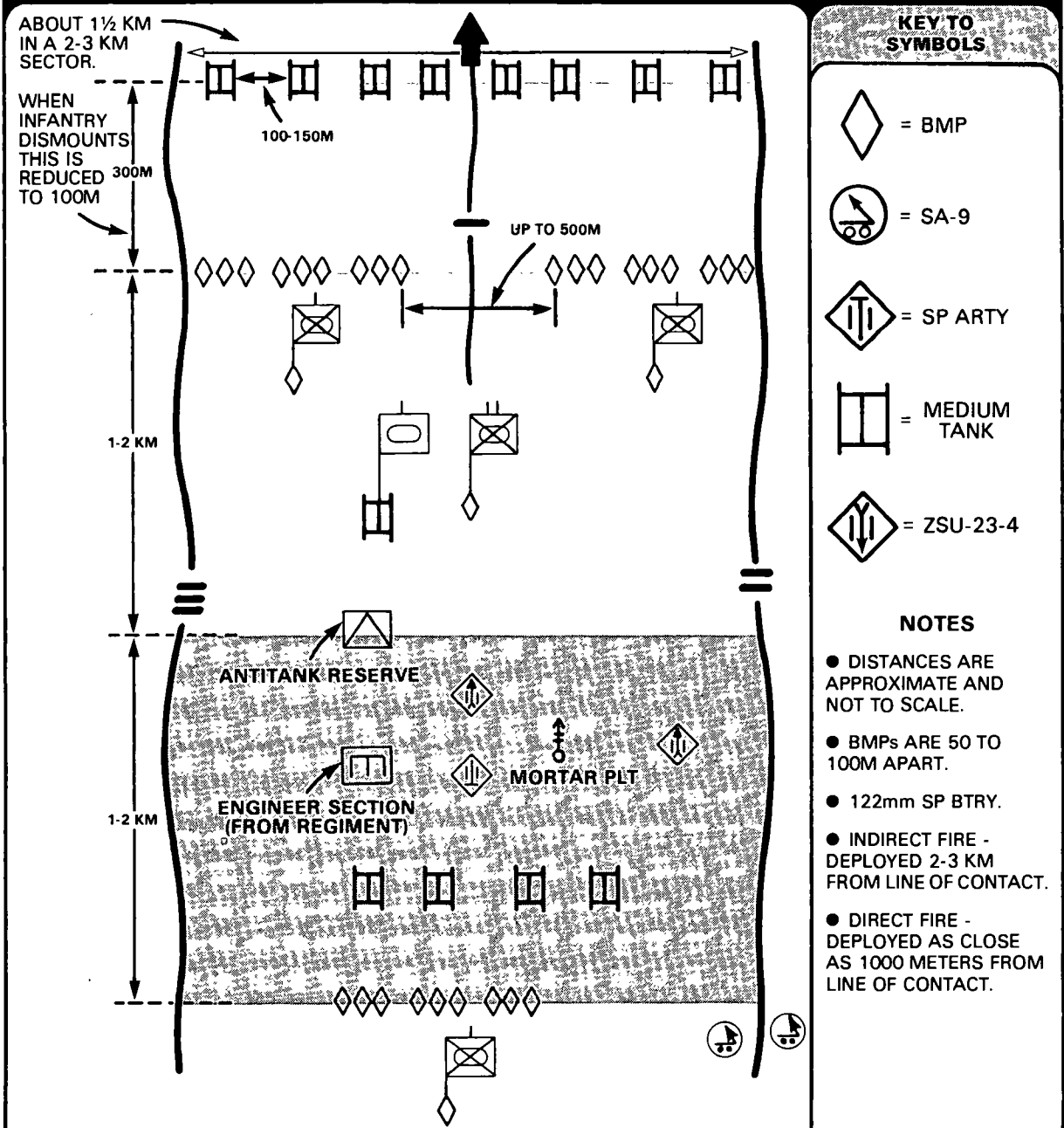
ELECTRONIC AND COMMUNICATION SECURITY

Because the enemy uses direction finding equipment to pinpoint locations of transmitters, electronic devices such as radios, radars, and infrared equipment are used only when needed. *The enemy's DF*

halting in the belief that the disadvantage of a hastily planned and executed attack is more than offset by the advantage of striking an enemy who has not adequately completed his defensive plans. A typical formation for a Threat motorized rifle battalion in attack formation is shown here. Depicted are two

reinforced companies forward and one company in the second echelon. An AT reserve is maintained. The hasty attack can also be made with three companies forward. The reinforced tank battalion looks similar; only the tank-infantry ratio is reversed, and there is no antitank reserve.

MOTORIZED RIFLE BATTALION IN THE ATTACK



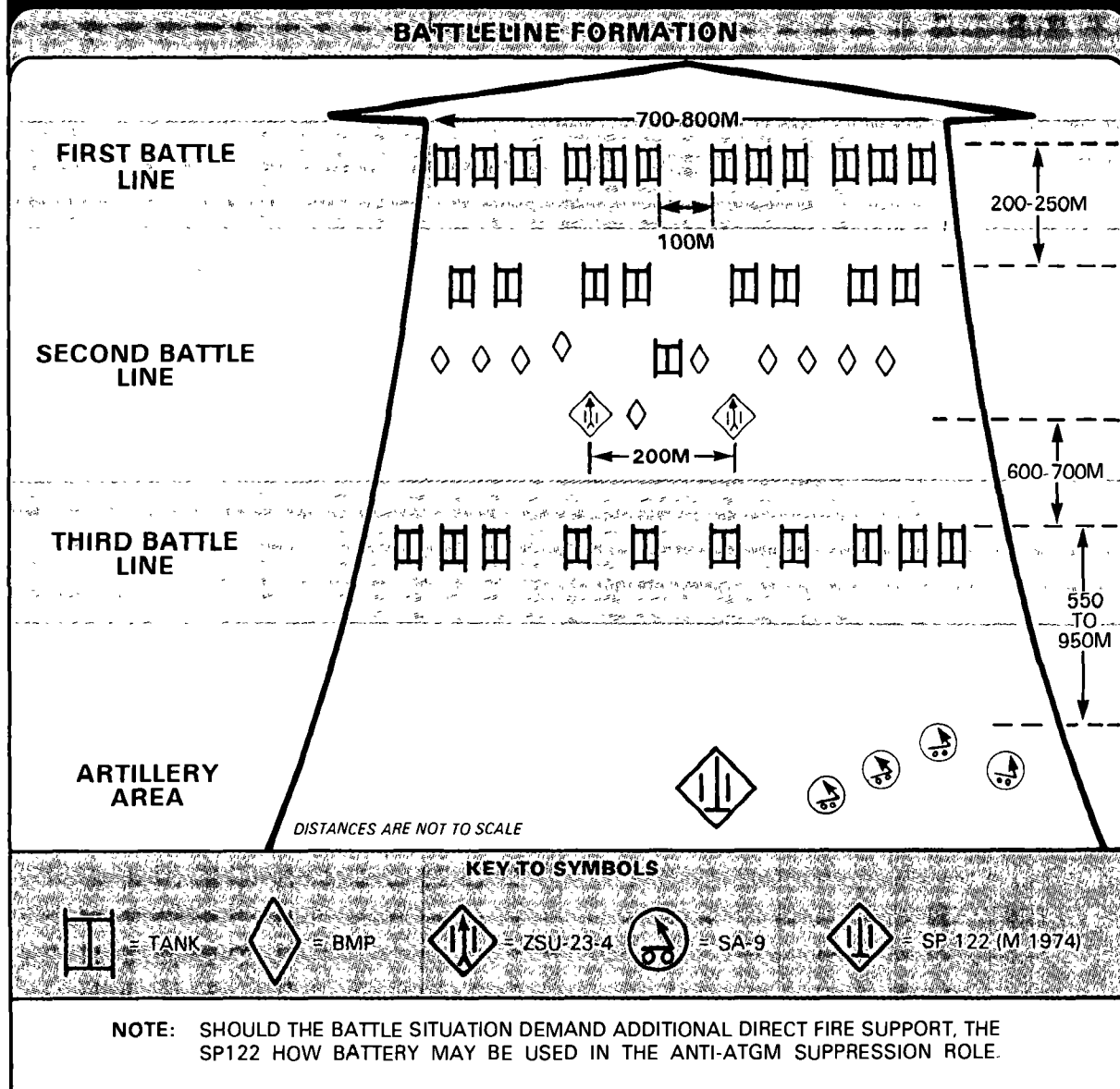
2

The Deliberate Attack or Breakthrough. The Threat uses the deliberate attack or breakthrough to rupture the enemy's forward defenses to permit the passage of exploitation forces. A meticulously planned, deliberate offensive operation, the breakthrough is carried out against well-prepared defenses in which no gaps or flanks can be found. *Threat forces*

consider artillery, tanks, and motorized rifle troops as the primary ingredients of combat power and will attempt to mass these arms in the quantities they deem necessary to achieve penetration of the enemy defense.

Threat doctrine calls for the use of tank units both in the first echelon of the

REINFORCED TANK BATTALION BREAKTHROUGH



breakthrough and as exploitation forces. In the presence of exceptionally strong defenses, especially a heavy antitank defense, or terrain unsuited to tank employment, however, they will use motorized rifle units for the breakthrough. Troops remain mounted and fight from the carrier until forced to dismount.

As seen from the vantage point of the Threat commander, the breakthrough appears as a telescoping sequence of increasingly larger penetrations as each tactical level of organization is brought to bear. The sequence begins with the initial rupture by the first echelon battalions. When the second echelon battalion passes through the gap, the regiment itself then becomes part of the division's breakthrough. As the process continues up through each succeeding level, the width and depth of the breakthrough expands in proportion.

The combat formation adopted by tank battalions making the breakthrough is normally that of forces deployed in successive battle lines as shown in the accompanying diagram. The battalion battle line frontage under conventional conditions may approach 1000 meters with forward companies separated by up to 100 meters and assigned frontages of about 500 meters. At the decisive point of breakthrough, the battalion frontage will narrow to between 700-800 meters with forward companies separated by the normal vehicle internal which is less than 50 meters.

The second battle line advances behind the first at a distance of between 200-250 meters. The tanks of the second battle line maintain firing lanes through the gaps between tanks in the first line. This combat formation allows the second battle line to engage in the battle simultaneously with the first, maintain a constant readiness to move forward to replace losses, and adds an offensive depth to the battalion's attack. A reinforcing motorized rifle company is

expected to be deployed to the immediate rear of the tanks in the second battle line along with forward air defense units to provide a combined arms capability.

Should a heavy antitank defense be expected, a third battle line may be established by deploying the tanks of the third company across the entire rear of the battalion sector at a distance of 600-700 meters from the second battle line. These tanks can also bring fire to bear upon the enemy and rapidly replace losses in the forward battle lines while covering the battalion's flanks.

Should the battle situation demand additional direct firepower, the self-propelled artillery battery in support may be used in this role.

In some cases, the Threat commander may elect to establish a second echelon or reserve in lieu of a third battle line. This option is normally dependent upon the anticipation of light to moderately established antitank defenses.

The deliberate attack is preceded by a thorough reconnaissance and sufficient engineer work to clear lanes through enemy obstacles. The Threat considers finding and neutralizing ATGM positions of utmost importance; one of the keys to launching a successful attack.

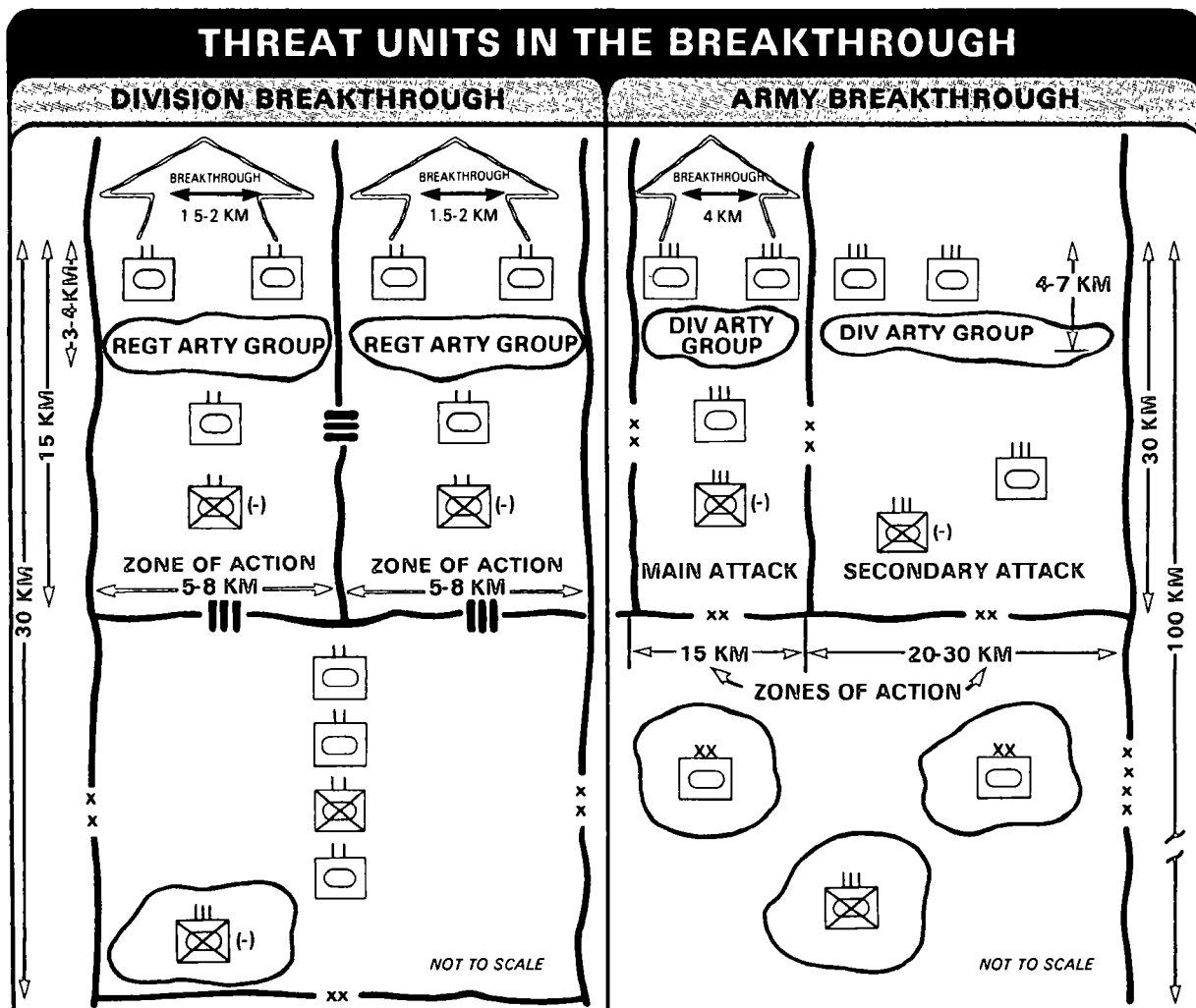
Artillery is essential to the success of the breakthrough. In the conventional version of the breakthrough, concentrated preparations last from thirty minutes to an hour or longer. The goal is to achieve total neutralization of the defending enemy units and artillery in the breakthrough sector. Artillery fires will be concentrated in the breakthrough areas with up to 100 tubes per kilometer of breakthrough frontage. Artillery support to achieve this density may include multiple rocket launchers, mortars 120mm and above, and 100mm AT guns. Tank guns may be used as artillery if necessary.

The drawings here are schematics of Threat units in the breakthrough. In these diagrams the dimensions given represent the ideal case; frontages of Threat units are as sensitive to terrain and the enemy as US units are.

Unit boundaries shown in each of the figures delineate the zones of action. Within these zones, the unit assigns an axis to each of its subordinate units. Breakthrough sectors are shown in each of the figures as arrows. Dimensions of breakthrough sectors do not coincide with those of the zones of action. The breakthrough is accomplished by moving the bulk of the attacking force along its assigned axis; the remaining small

percentage of the unit conducts economy of force operations within the zone of action, but outside the breakthrough sector.

The breakthrough is a two-phase operation: the rupture of the forward defensive positions followed by the destruction or neutralization of supporting forces that can counterattack. As an example, the mission of the regiment includes continuing the attack to destroy the division reserves. The depth of the breakthrough, then, is a function not only of the depth of the enemy's continuous defenses, but of the depth of the associated reserves as well.



3

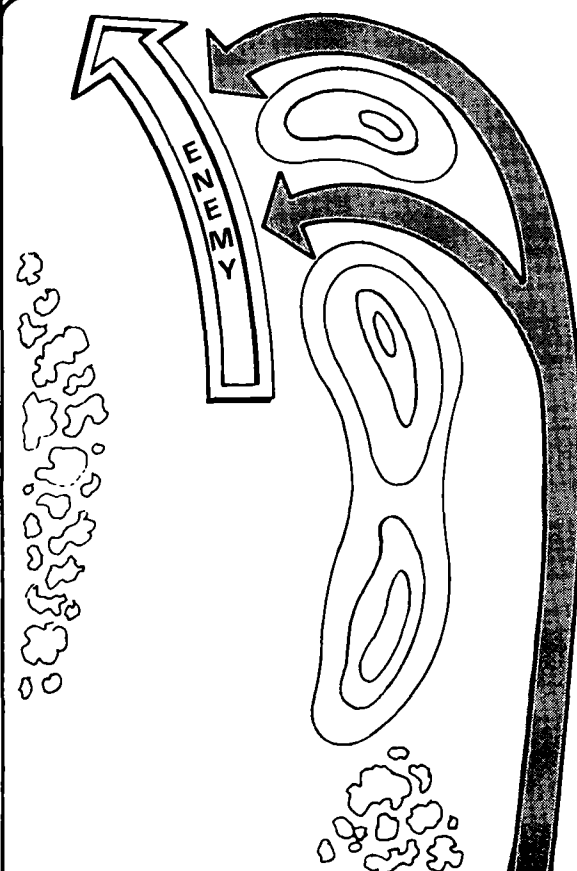
The Pursuit. The Threat considers the pursuit *an offensive operation designed to complete the destruction of the enemy.* Rather than follow a retreating enemy, pursuing units move along routes parallel to the enemy's retreat, attempting to outdistance elements of the enemy force, cut the withdrawing columns into segments, and destroy them. Helicopters will be employed to locate and engage retreating units and guide pursuing forces into contact. Airborne, airlanded, and airmobile forces will be used to control critical terrain and block or slow down the enemy's withdrawal.

Planning for the pursuit is begun before the attack. Plans include consideration of possible withdrawal routes, composition of pursuit forces, and preparation of schemes of maneuver best suited to the situation. The pursuit is initiated at the first opportunity by regiments and higher units and is terminated only on orders by army or higher commanders.

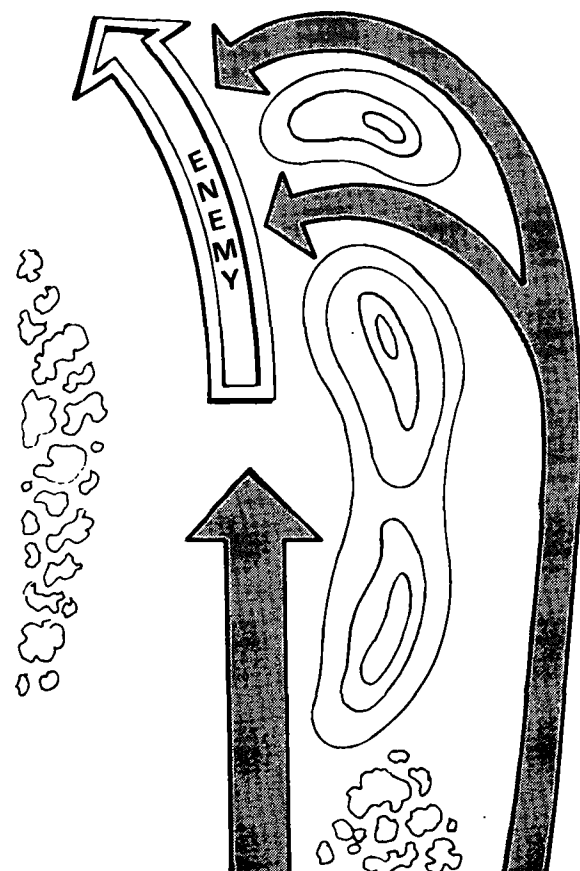
Orders to end the pursuit are issued 1 when the enemy has been completely destroyed; 2 when pursuit forces have outdistanced their logistical support or are over-extended and in danger of being cut off; or, 3 when the enemy has succeeded in establishing a strong defensive position.

EXAMPLES OF PURSUIT OPERATIONS

PARALLEL PURSUIT



COMBINATION PURSUIT



4

The Night Attack. The Threat prefers to attack at night when terrain, minefields, and other obstacles eliminate the possibility of surprise and will cause excessive losses in daytime operations. Round-the-clock operations are habitual to maintain the uninterrupted momentum of the offensive.

**THREAT FORCES TRAIN
EXTENSIVELY FOR
NIGHT COMBAT**

Threat units are equipped with night fighting devices: gunlaying telescopes, night viewers, night driving and aiming equipment, sniperscopes and others. Battlefield illumination and artillery fire support of night operations are frequently practiced. However, to gain surprise, the Threat commander may, under certain conditions, opt not to employ one or both of these combat support means. All tactical organization elements can conduct night operations, and extensive training is conducted to prepare units for sustained employment at night and during periods of reduced visibility. Preparations for night attacks are made in detail and plans are based on careful reconnaissance, simplicity of maneuver, speed of execution, and surprise.

The motorized rifle battalion normally attacks in a single echelon preceded by a small advance guard. Companies are deployed in line, each company being deployed in a line of platoons. Individual riflemen may wear some type of identification such as white armbands.

Tanks are frequently employed in night attacks with motorized rifle units. Careful terrain reconnaissance and close cooperation with motorized rifle units are considered essential for successful use of tanks at night. Each tank is assigned a route, mission, and specific assault team. Several riflemen are assigned to each tank to aid its crew in locating antitank weapons and obstacles. When the situation permits, tank headlights and searchlights are used to illuminate enemy firing points, to blind the enemy, and to assist obstacle-clearing parties.

Illumination support for night attacks is primarily used to light up objectives deep within the enemy positions and as a guide to advancing forces. Illumination is often used to mark targets for artillery fires and to interfere with the enemy's night vision equipment.

During a night attack, the artillery normally in support of the regiment may be attached to lead battalions and companies. This attachment supports the subordinate units in their relatively independent action in developing the attack in depth.

To repel enemy counterattacks at night, Threat forces intensify reconnaissance along the flanks of each unit and to the front for early detection of approaching enemy forces. Continuous illumination of the terrain along all possible axes of enemy counterattack is utilized.

Assault Tactics. The Threat force prefers to lead offensive operations with tanks, but will lead with motorized rifle units when either the terrain is not suitable for armor, or when heavy antitank defenses exist. Regardless of which arm dominates in the first echelon of an offensive operation, only rarely will Threat forces employ pure units. Normally, motorized rifle troops will accompany tanks, or tanks will accompany motorized rifle troops.

In the meeting engagement (both forces moving), Threat forces normally attempt to fix with the advanced party and maneuver the main body to conduct a mounted attack against the flank or rear of the enemy column. The BMP is ideally suited for this role in terms of maneuverability, firepower and shock action.

In the conduct of the hasty or the deliberate attack, intensive artillery and mortar preparations provide suppression. Leading

assault elements will move in very close to this fire before it is shifted further to the rear. If the Threat commander calculates that the existing antiarmor resistance will be degraded, he may lead the assault with tanks followed closely by motorized riflemen mounted in BMPs. If heavy antitank defenses are expected, however, the motorized infantry may be dismounted with the BMP following close behind. This will occur also when intense AT fire forces the infantry to dismount from the BMP.

During the mounted assault, the Threat commander places great reliance upon his intelligence elements, the effects of suppressive fires, and the tempo of attack to surprise the defender. This minimizes the time available for the defender to employ antiarmor weapons effectively. The defender in this particular situation must plan to slow the Threat attack under conventional conditions by deploying heavy antiarmor defenses which will force the dismounted assault.

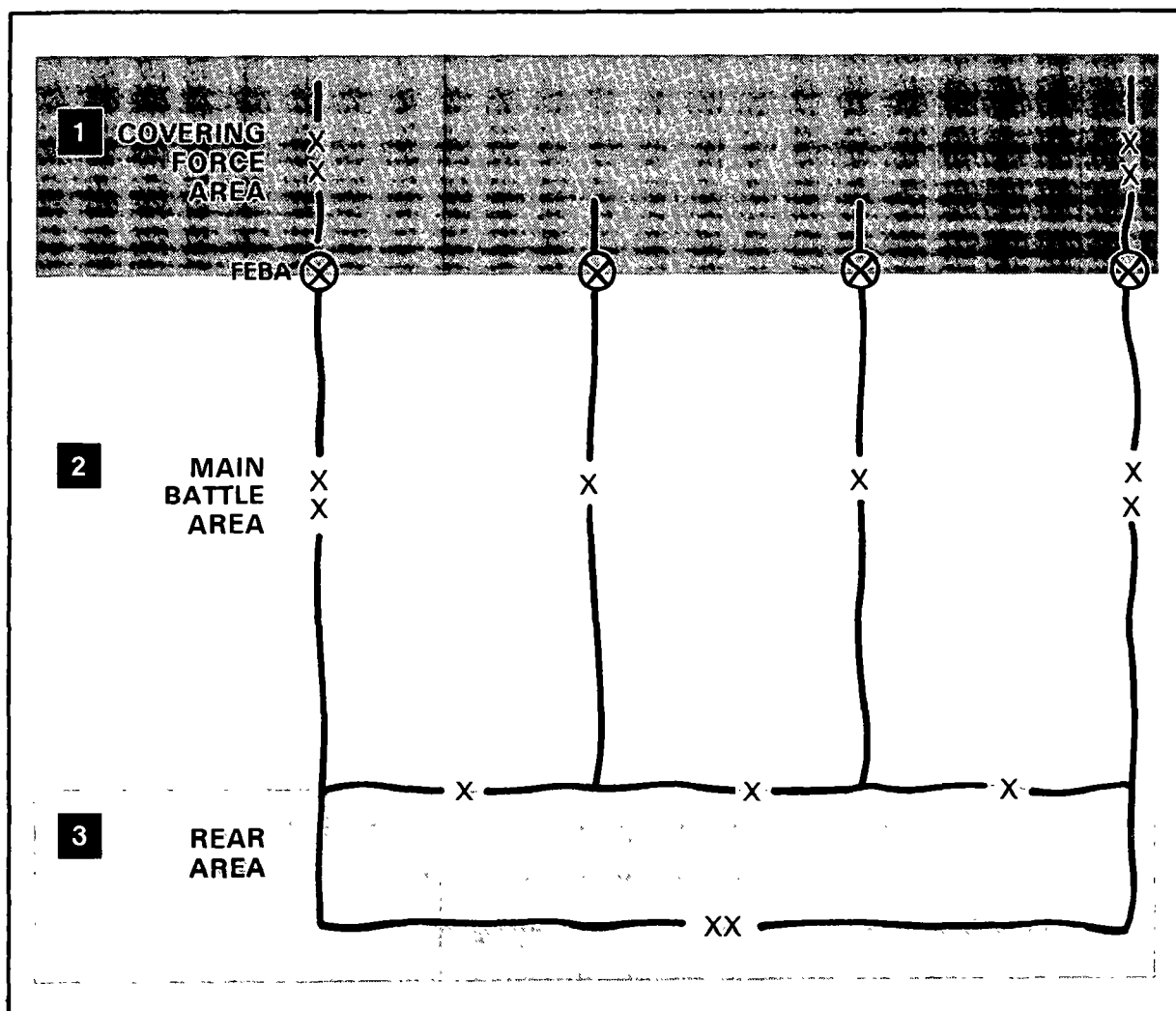
When facing heavy defensive fires, the tanks and motorized rifle units will resort to fire and maneuver techniques with infantry dismounting and the BMPs supporting by fire. The tanks and infantry move forward together, with the infantry remaining close to the tanks in order to suppress light antiarmor weapons by small arms fire. As antitank resistance is eliminated, BMPs move forward, infantry mount vehicles, and the mounted attack resumes. Generally, artillery and mortar fires are relied on to provide suppressive fires.

The Threat forces prefer to attack. Knowing what the Threat is likely to do allows the US Army commander to plan and organize a defense which will defeat the attack.

HOW TO PLAN AND ORGANIZE THE DEFENSE

When conducting defensive operations, the US Army normally organizes its divisional and corps battlefield into three areas:

- 1** covering force area, **2** main battle area, **3** and rear area.



- 1** **Covering Force Area (CFA).** If a covering force is established, its mission will be primarily to find the enemy. Then it will fight with sufficient force to cause the enemy to reveal the location and direction of movement of his main thrust(s). This must be done

sufficiently far forward to permit forces in the main battle area to concentrate accordingly. The covering force strips away enemy reconnaissance units, forces the enemy to maneuver to bypass, and when the enemy launches hasty attacks, to defeat those attacks. As the enemy shifts forces, brings up artillery, and masses for a deliberate attack, he will reveal his composition, strength, and intended direction of attack. A covering force seeks to deceive the enemy as to the actual location of the main battle area. The covering force mission is normally delay, which could be terrain specific, time specific, or both. The mission of battalion task forces and squadrons operating with the covering force is normally delay, although sometimes it may be necessary to defend specific terrain or in specific areas to accomplish the covering force mission.

**THE COVERING FORCE FIGHTS
AND DELAYS TO FORCE THE
ENEMY TO SHOW MAIN THRUST
AND TO DENY HIM ACCESS TO
THE MAIN BATTLE AREA**

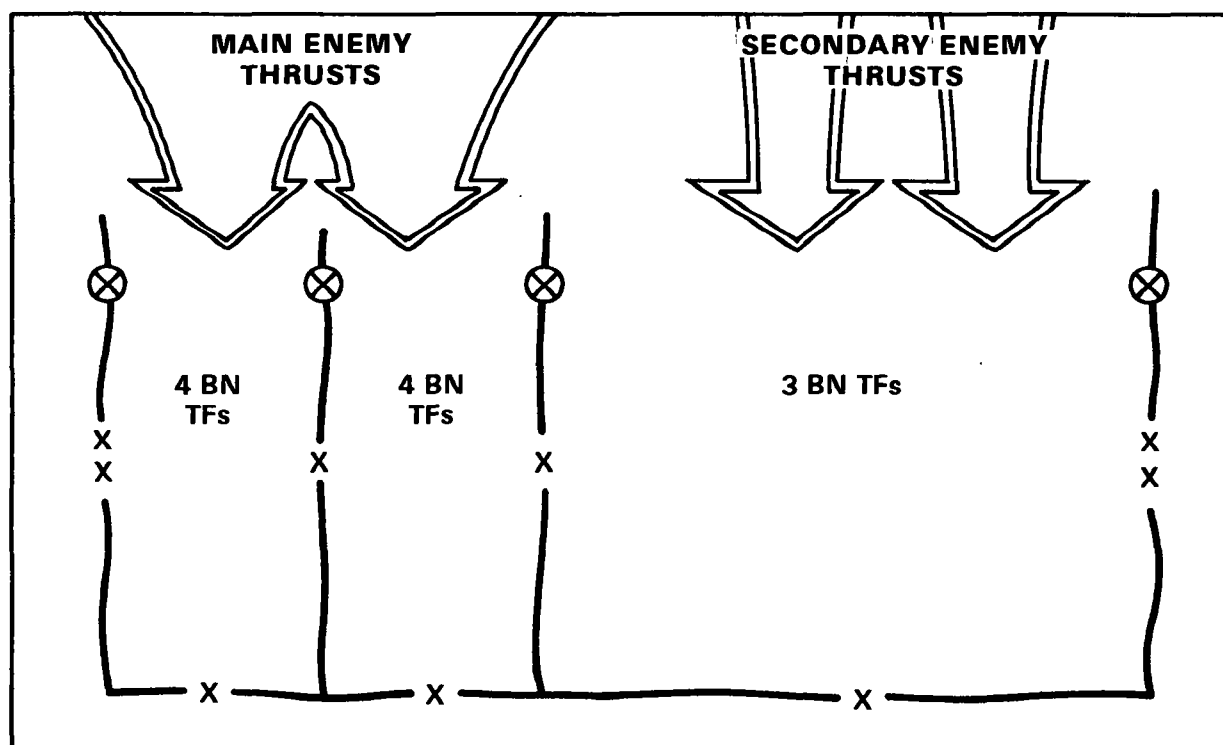
The CFA begins at the line of contact and ends at the FEBA. The size and composition of the covering force are based on the mission, enemy and terrain. *It is an antitank heavy force.* A covering force operating in front of a division might consist of up to five or six tank-heavy battalions, artillery, air defense and engineer units. The covering force may be organized around a separate headquarters reporting directly to division or corps or to MBA brigades which assume control of covering forces operating forward of their positions. This is normally done when the covering force can be supported by direct support (DS) field artillery positioned in the MBA.

The covering force presses the fight as far forward of the MBA as possible, fighting until forced to move toward the MBA or faced with the risk of unacceptable losses to the force. And when this occurs, the covering force *continues to fight* as it moves toward the MBA, maximizing destruction of the enemy while minimizing its own losses. The field artillery may continue its fires as elements move to the rear or lateral positions.

When operating as a part of the covering force, the battalion task force commander fights his company teams from a series of covered and concealed positions, engaging when the enemy cannot return effective fire.

If not initially controlled by an MBA brigade, the task force can expect, at some point during the covering force battle, to be detached from the corps or divisional covering force and attached to an MBA brigade. Communications and liaison are established with the gaining brigade as in any operation. When directed to do so, the battalion task force hands off the enemy to MBA forces, moves to a designated area in the MBA, and prepares for operations in the MBA.

- 2 Main Battle Area (MBA).** The decisive battle is fought in the main battle area. Here, forces will be concentrated against the enemy main thrust. As a result of concentration, forces usually will be unequally distributed laterally. The lateral arrangement of forces at the start of the fight in the MBA might be as shown.



Thus there will be differences in the way a battalion task force will fight the defensive battle. Much depends upon whether the task force is in the area where forces are concentrated or in the area where forces are economized. Additional differences are dictated by mission, enemy, terrain, and number and type of companies available.

- 3 Rear Area.** Division controls the area behind brigade rear boundaries. Divisional command control and support activities are located here. Battalion task forces retained as division reserve may be located in the rear area; however, normally they will be committed to the fight in the MBA by attachment to brigades. The rear area must be protected from enemy thrusts, as loss of any of the facilities located there would be a serious disadvantage for the overall defense.

Battalion Task Force Missions. While the battalion task force may sometimes receive written defensive orders including formal tasking statements and graphic control measures, the rapid flow of battle dictates that defensive orders most often will be oral and fragmentary. In either case, the commander's concept of how the overall action will be conducted is vital. In the best of cases, the brigade commander will tell the task force commander, face-to-face, what he is to do, where he is to do it, and how it contributes to the brigade operation. If face-to-face coordination is not possible, this same information must be transmitted on secure voice radio.

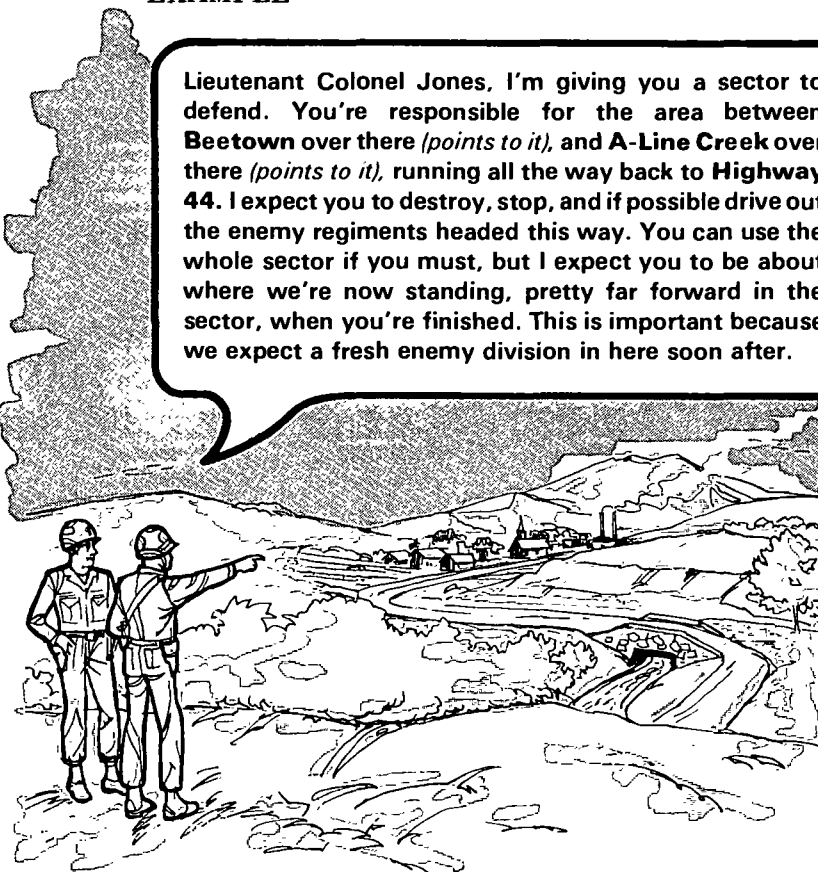
The following are typical missions which may be received by a battalion task force commander, together with examples of the way each might be expressed by the brigade commander.

EXAMPLE

DEFEND IN SECTOR

Sectors, used primarily in the forward portion of the MBA, are oriented on enemy avenues of approach, and are usually deeper than they are wide to permit the defending unit to fight the battle in depth from successive positions. A commander receiving this mission generally establishes his initial positions as far forward as possible, but may use any techniques appropriate to the situation, and the full depth of his sector, to destroy, stop, or drive out enemy forces. He must prevent enemy forces from passing through his sector beyond his rear boundary.

Lieutenant Colonel Jones, I'm giving you a sector to defend. You're responsible for the area between **Beetown** over there (points to it), and **A-Line Creek** over there (points to it), running all the way back to **Highway 44**. I expect you to destroy, stop, and if possible drive out the enemy regiments headed this way. You can use the whole sector if you must, but I expect you to be about where we're now standing, pretty far forward in the sector, when you're finished. This is important because we expect a fresh enemy division in here soon after.



EXAMPLE

DEFEND FROM A BATTLE AREA

As battalion task forces are concentrated in the area of maximum enemy effort, such as a breakthrough attempt, they may be assigned battle areas behind the forward task forces in the MBA. From these they can reinforce the forward TFs, or take up the battle as the enemy advances beyond the forward TF positions. A commander receiving this mission may use techniques appropriate to the situation to destroy, stop, or cause the withdrawal of enemy forces. The task force may maneuver and employ indirect fires freely within the assigned battle area. It may employ direct fires within or outside of its assigned battle area against clearly identified enemy targets. In areas of a high density of friendly task forces concentrated against enemy breakthrough efforts, it is normal for the brigade commander to reserve the authority for employment of scatterable mines.

Lieutenant Colonel Smith, I want you to occupy this battle area, which includes battle position 16, 21 and 22. The enemy has massed for a breakthrough and is headed this way along the ridge lines out there to our front. Task Force 2-92 is in position on the left, with Task Force 2-90 behind them. Task Force 2-10 is occupying a battle area behind you, offset as you can see on the map. Now when the enemy appears out of that woodline you start your engagement. That's about maximum range for any of your direct fire weapons. Keep him under fire until he gets to the farm road, just forward of where we're standing, and give it everything you've got. But, I don't want you to get pinned down here, so when the enemy gets to that farm road, you be ready to pull out quickly, through this wooded area, and around Task Force 2-10 into this battle area here on the map. Both 2-92 and 2-10 will have the enemy under fire to cover your move. I'll either meet you in the new area or send instructions on what I want you to do there.



EXAMPLE

DEFEND IN SECTOR (OR DEFEND FROM A BATTLE AREA),
RETAIN SPECIFIED TERRAIN

In addition to the freedom of action and restrictions described above, the task force commander must also retain specified terrain, e.g., "retain village of NEUDORF," "retain Hill 596," or hold Hill 597 until TF 9-72 has withdrawn south of Hwy 95."

The brigade commander will specify terrain to be retained when such has been directed by the division commander, where the terrain is critical to the defense, or, to insure that the defensive battle conducted by adjacent units is integrated. Occasionally, an entire TF may be required

to occupy and hold specified terrain features (such as a hill or a town).

Lieutenant Colonel Doe, here's your sector (indicates it on the map and by pointing to particular terrain features). You can maneuver around as you see fit, but, there are things you can't do. Don't give up Roundville without my permission, and you won't get that before about 1600 today. If the enemy maneuvers away to the left of Roundville it puts them right where I want them. If they try to go to the right you can handle them because the terrain canalizes them. If they come through Roundville and on down the valley in strength before late afternoon, I won't be completely ready to take care of that. So you've GOT to hold the town until at least 1600 today.



EXAMPLE

DELAY IN SECTOR

This is a *LOW RISK* mission which requires the battalion task force to slow and defeat as much of the enemy as possible without sacrificing the tactical integrity of the battalion. This mission is appropriate to battalion task forces in the CFA when preservation of the TF for tasks in the MBA is more important than giving maximum delay. Such may be the case when the forces in the MBA are properly deployed in adequately prepared positions. This mission is also appropriate to the economy-of-force area in the MBA when, because of the strength of the enemy attacks and the resulting threat of deep penetrations, it is more

important to retain friendly forces between the enemy and his objec-

tive, than to engage in higher risk defensive operations.

Here's the problem. Division has pulled Task Force 2-10 out to go up to first brigade where they expect the enemy breakthrough attempt. We've still got at least two, and maybe three, enemy regiments to contend with in your area. I want you to delay them in this sector for as long as you can. Attrite their force as much as you can, but don't get pinned down or overrun. I can't risk losing any of your companies, so I won't put any time restriction on you. Just stay in front of the enemy, delay his advance as much as you can, and keep me posted.



EXAMPLE

DELAY FORWARD OF A SPECIFIED LINE FOR A SPECIFIED TIME

This is a *HIGH RISK* mission which requires the battalion task force to prevent enemy forces from reaching the specified area earlier than the specified time regardless of the cost. This mission can be given to battalion task forces in the CFA, or in the MBA if *NOT* in the area of concentration.

You've got to delay the enemy forward of Cedar Creek for at least 8 hours. Task Force Anderson has the same mission on the right. We're not sure how much the enemy has available to come this way. If you can hold right here, that would be fine. But even if they come with a major thrust, they must not get across Cedar Creek until 2d brigade sorts out their fight up north. You do what you have to do to hold them. The chance of losing part of the force is a risk I'll just have to take.



Company Team Missions. The battalion task force commander makes his plan based upon the brigade scheme of defense. Like the brigade commander, he must explain how he visualizes the overall use of forces and fires. It is even more important at this level to explain the battle as he believes it will flow. He does this before the battle, if possible, so that he can amply describe how he intends to maneuver companies or teams, when or under what circumstances he will move them, when and where he will counterattack, and his planned options and variations.

Thereafter, he can implement or modify parts of the plan quickly and in few words. Most important, his subordinates can exercise their initiative and operate in concert with the TF commanders' overall plan. This is particularly important during the confusion of battle and in the high threat EW environment when radio communications may be blocked at critical moments. The following are typical missions which may be received by a company or company team, together with examples of the way orders might be expressed by the TF commander.

EXAMPLE: (Mission issued during the battle.)**OCCUPY A BATTLE POSITION**

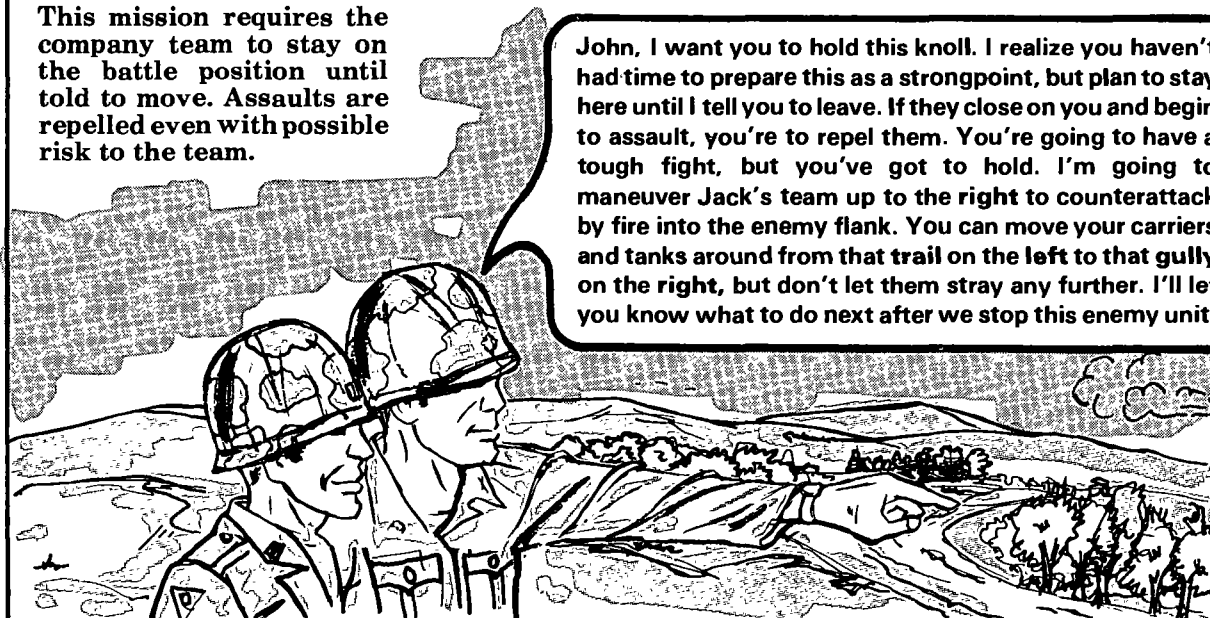
This mission requires the company team to use the assigned battle position as a base for delivering fires against an enemy in one or more designated target areas. It is not normally intended as a position from which to repel an assault. The team commander must be told where his team will go next, but not to relocate without approval of the battalion task force commander.

Bob, I want you to occupy Battle Position 34, right here. The enemy is going to come out of the town over there in a few minutes. I want you to open up at max range and knock out as many of them as you can. I'm giving you priority of artillery fires. My plan now is for you to fight from here until the enemy gets to the stream here in front of the position. I'll be where I can see the fight and judge when to move you, but if you can't reach me on the radio when the battle starts up the near side of the stream, you move out immediately to Battle Position 36. Go over the trail you and I just used. Joe's team and some TOWs on Battle Position 37 will cover your move.

**EXAMPLE: (Mission issued during the battle.)****DEFEND TO RETAIN A BATTLE POSITION**

This mission requires the company team to stay on the battle position until told to move. Assaults are repelled even with possible risk to the team.

John, I want you to hold this knoll. I realize you haven't had time to prepare this as a strongpoint, but plan to stay here until I tell you to leave. If they close on you and begin to assault, you're to repel them. You're going to have a tough fight, but you've got to hold. I'm going to maneuver Jack's team up to the right to counterattack by fire into the enemy flank. You can move your carriers and tanks around from that trail on the left to that gully on the right, but don't let them stray any further. I'll let you know what to do next after we stop this enemy unit.

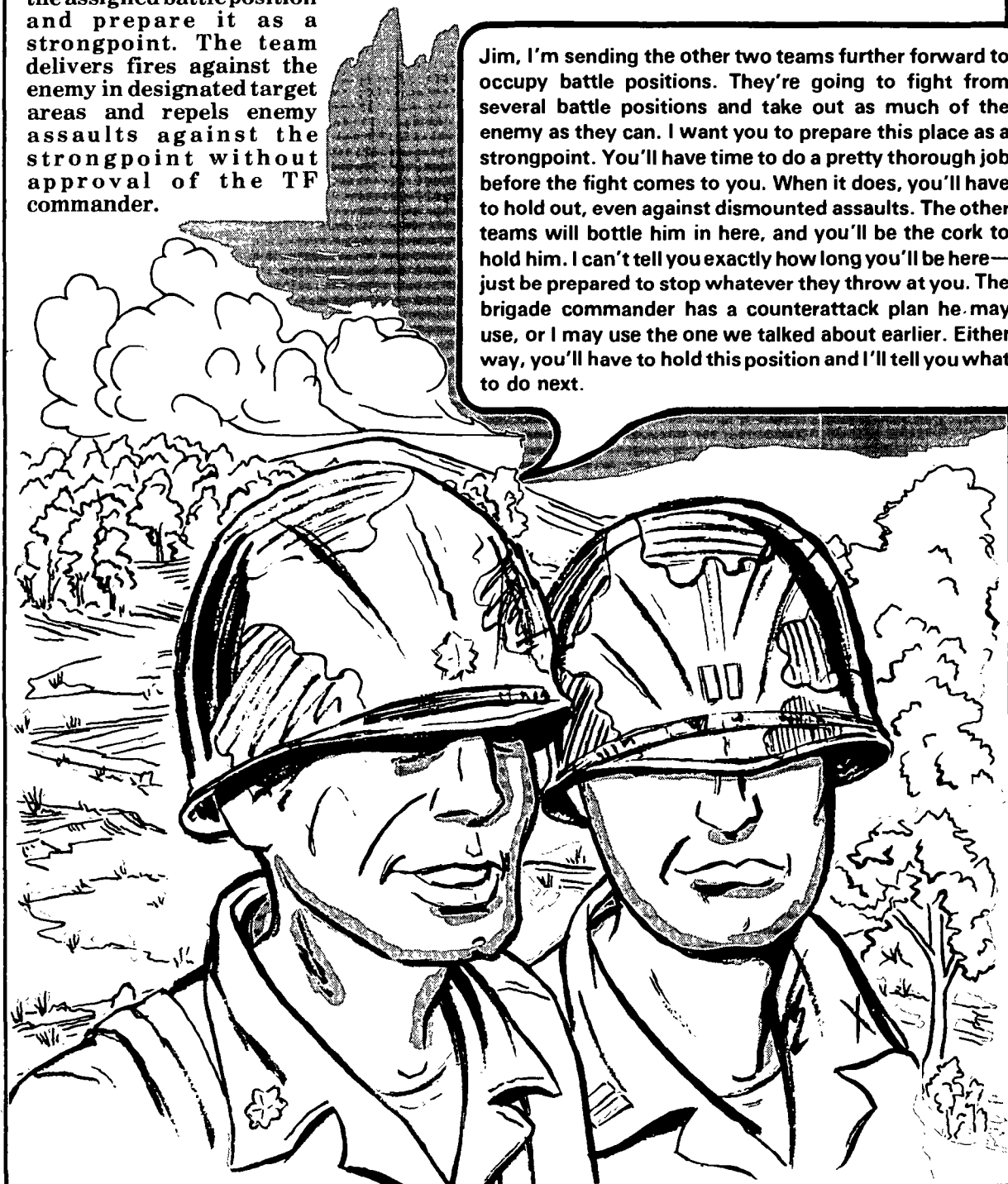


EXAMPLE

CREATE AND DEFEND A STRONGPOINT

This mission requires the company team to occupy the assigned battle position and prepare it as a strongpoint. The team delivers fires against the enemy in designated target areas and repels enemy assaults against the strongpoint without approval of the TF commander.

Jim, I'm sending the other two teams further forward to occupy battle positions. They're going to fight from several battle positions and take out as much of the enemy as they can. I want you to prepare this place as a strongpoint. You'll have time to do a pretty thorough job before the fight comes to you. When it does, you'll have to hold out, even against dismounted assaults. The other teams will bottle him in here, and you'll be the cork—just be prepared to stop whatever they throw at you. The brigade commander has a counterattack plan he may use, or I may use the one we talked about earlier. Either way, you'll have to hold this position and I'll tell you what to do next.



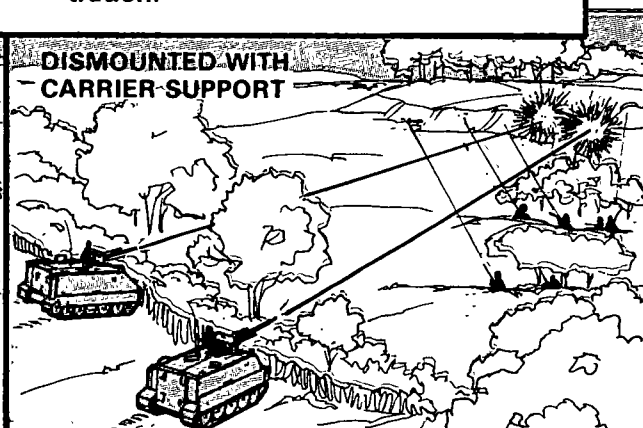
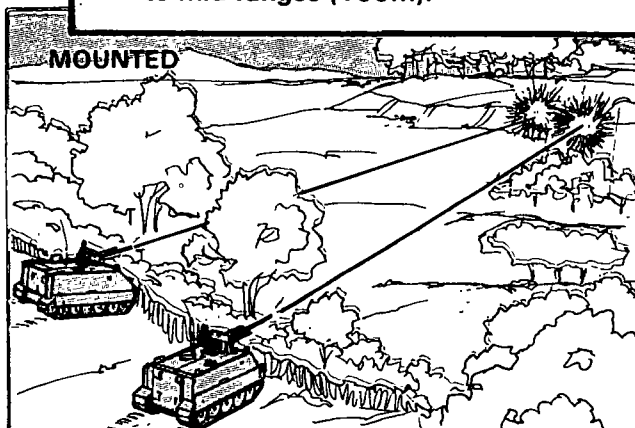
How to Employ Weapon Systems in the Defense. Usually, a battalion task force will contain three major weapon systems. The capabilities, limitations and employment considerations of each must be clearly understood by the TF commander.

1

MECHANIZED INFANTRY—organized, equipped, and trained to take and hold ground, and to defeat enemy infantry with its numerous automatic small arms and machineguns. Also armed with light and medium antitank weapons, it can be used as a medium-range tank-killing system.

Mechanized infantry is used to:

- Defend in terrain restrictive to tanks, such as forested areas, villages and cities.
- Defend designated positions against determined enemy mounted and dismounted attacks.
- Destroy enemy armored vehicles out to mid-ranges (100m).
- Overwatch friendly tank and APC movements or counterattacks with MAW.
- Suppress enemy antitank weapons.
- Block covered and concealed routes of enemy attack or infiltration.
- Secure tanks and ATGM under low visibility conditions against infiltration.



Mechanized infantry in defensive operations fight either mounted in their carriers or dismounted.

The *MOUNTED* technique is used in an active-type defense when battle positions are hastily occupied and must be readily vacated

in the delay, or to conduct mounted patrols and surveillance.

When *DISMOUNTED*, they employ carriers to support the dismounted elements, or the carriers are given separate combat tasks.

2

TANKS—organized, equipped and trained to take ground, and to defeat enemy armored vehicles and other targets with main guns and secondary weapons. Armor protection permits operation under enemy small arms and artillery fire. Tanks fight best as mobile systems.

**TANKS PROVIDE
DEPTH DEFENSE—DESTROY
ENEMY TARGETS, PROTECT
INFANTRY, AND PROVIDE
COUNTERATTACK POWER**

Tanks contribute a major role to the defense by destroying enemy tanks and other hard targets with their main guns, by protecting infantry, and by counter-attacking. They provide the combat power to move the team and task force from one position to another in the face of enemy opposition or in counterattack.

Tanks must be used in ways that maximize their maneuver capability whenever possible. In open, rolling terrain, tanks should be positioned to take advantage of their long-range main guns. In close terrain, tanks must be carefully sited to permit best use of available fields of fire.

3

HEAVY ANTITANK WEAPONS (TOW)—organized, equipped, and trained to provide medium and long-range antiarmor fires up to 3000m. TOW sections may be under team control or occasionally retained under task force control.

TOWs should be positioned to engage the enemy initially at long ranges where the TOW has a range advantage over the tank. As the battle closes, the TOW is positioned to engage the enemy from the flank to make it harder for the enemy to acquire and fire at TOWs, while providing cover from direct frontal fire.

Since TOWs are optimized for long-range engagements, they are not normally collocated with mechanized infantry platoons.

While TOWs can be dismounted, they are normally employed mounted on vehicles in order to rapidly move them into firing positions, and to quickly relocate them to other positions to minimize their vulnerability to direct and indirect fires.

For further discussion of the combined arms interaction of these weapons systems in the defense see *FM 71-1, Chapter 5*.

How to Allocate Weapon Systems. Combat power in the defense can be considered in terms of the number of systems required to defeat the enemy targets expected to be present. This required density of fires is based upon two factors:

1 the maximum number of vehicles the enemy can deploy at one time on a given avenue of approach, and the length of time this target array will be exposed. This must be based upon thorough knowledge of enemy organization and tactics, careful study of the terrain in the area, and a reasoned estimate of the effect of obstacles in the area.

2 the rate of fire and the capabilities of weapon systems to hit and kill at the ranges where the enemy will be exposed. This is based upon knowledge of systems capabilities, expertise of gunners, ammunition available, and battlefield experience.

While the exact outcome of battle cannot be predicted, these factors can be used to determine the general number of weapon systems required to achieve the necessary fire density. They also provide an indication of ways to improve the defense. *If a large enemy force will be exposed but briefly at 2500 meters, the commander will recognize that he must have one or more of the following:*

- A large number of TOW, or
- Better fields of fire, or

- A way to slow the enemy; e.g., obstacles, so that he is visible for a longer time.

If an enemy force can appear at mid-range with a large number of armored vehicles, the commander needs:

- Early warning of enemy approach.
- A large number of TOW and tanks.
- Effective suppressive fires.
- Obstacles to canalize and slow the enemy.
- A series of positions from which to deliver direct fire.

If the principal threat is dismounted infantry or if there are covered and concealed approaches, the commander needs:

- Effective surveillance.
- Large numbers of anti-infantry weapons (machineguns, mortars, artillery, antipersonnel mines, etc.).
- Close-in defensive fires.
- Infantry antitank weapons (Dragon, LAW, AT mines, etc.) to defeat supporting enemy armor.

The commander plans the use of his weapon systems to achieve the required type and density of fires in accordance with his concept of how the battle will be fought. He organizes forces, creates or improves obstacles, plans and improves positions, and issues orders so that the battalion task force can achieve maximum effectiveness from each system in each of several potential engagements.

How to Concentrate Forces. If the defense against a strong, mobile enemy is to succeed, the outnumbered defender *must* be able to move his weapon systems and forces so as to concentrate the required combat power at the time and place needed.

Division and brigade commanders must count on being able to move task forces on extremely short notice. This fact places four demands on the task force commander:

- 1** *If his task force is among those ordered to a new area of concentration*, he must disengage from the enemy, move, and take up the new mission. These tasks must be accomplished as **RAPIDLY** as possible.
- 2** *If his task force is already in the area in which additional forces are being concentrated*, he may have to modify his plan for maneuver and fires to permit integration of the arriving units into the defense.
- 3** *If his task force is in the area of concentration*, he must be prepared to accept attachment of additional company teams and TOW sections, and rapidly integrate them into his scheme of defense.
- 4** *If his task force is remaining in the economy of force area from which units are moving to concentrate*, he will likely have to reposition his teams to take over additional responsibilities and perhaps detach a company team or TOW sections to units moving to concentrate.

Within the task force sector or battle area, the task force commander must focus on concentrating enough of the right type of weapon systems and fires where needed at the right time to defeat the enemy. The task force commander concentrates by:

- 1** *Moving company teams as necessary* to new battle positions to bring their fires to bear on the enemy.
- 2** *Directing company teams or platoons on a given battle position* to engage the enemy in an alternate sector of fire.
- 3** *Attaching additional tank or mechanized infantry platoons to company teams in combat* to be integrated into currently occupied positions, or to occupy nearby positions.
- 4** *Attaching additional TOW sections to company teams*, or directing the AT platoon to concentrate on a given area, to thicken AT fires there.

- 5** *Employing platoons directly under task force control* to occupy positions from which to engage the enemy (in cases where the additional platoon should not be attached to one of the teams), to provide overwatch for movement of company teams in contact to new positions, or to counterattack.

How to Organize a Strongpoint. In some exceptional cases, when the brigade or division commander decides that it is required to prevent a catastrophic penetration by armor, a battalion task force might be assigned the mission to prepare and occupy a strongpoint. The strongpoint is similar to a perimeter defense in that it is developed to defeat an attack from any direction. It differs from a perimeter in that it is essentially an antitank "nest" which physically cannot be overrun or bypassed by tanks, and can be reduced by infantry only with the expenditure of much time and overwhelming forces. It is the cork in a bottleneck formed by terrain, obstacles, and units. The strongpoint is distinguished from other defensive positions by the importance of the terrain on which it is located and the resulting time, effort, and resources dedicated to its development. It is an immovable object around which the battle will swirl.

Strongpoints may be located on the FEBA, or in the depth of the battle area. The division commander makes that determination based on:

- *Time and resources available to develop the strongpoint.*
- *The best terrain available to serve as an armor chokepoint.*
- *How he can tie the chokepoint into the rest of his defense.*

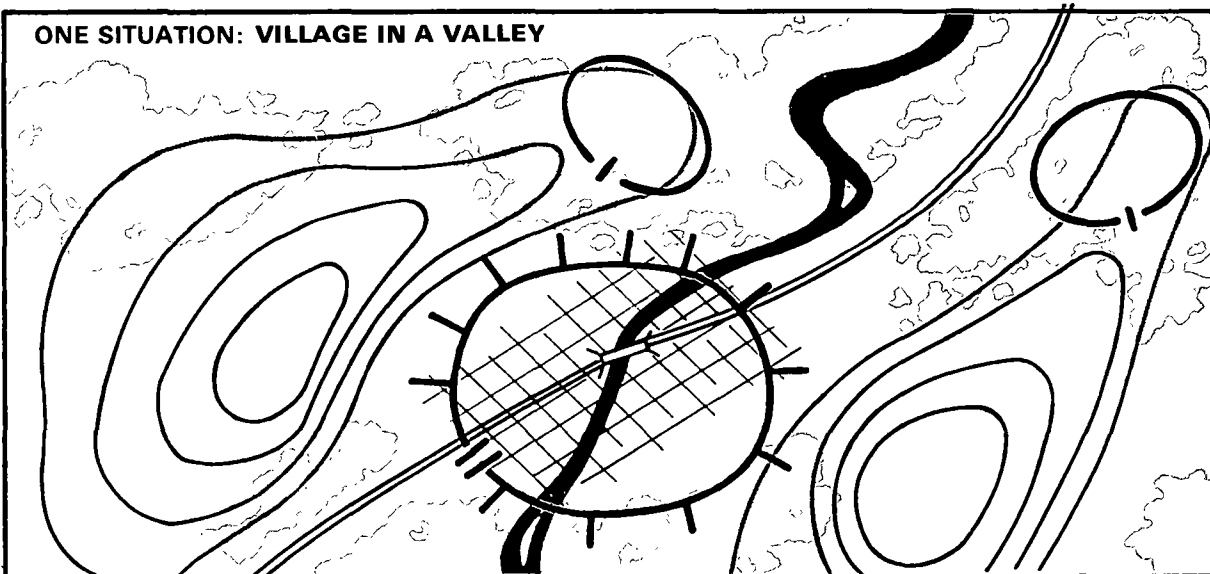
Two aspects of the strongpoint location are particularly critical. First, since considerable time is required to develop a strongpoint, the battalion must be placed far enough from the line of contact to provide that time. Second, terrain on the flanks of the strongpoint must restrict the advance of the attacker, or the battalion faces an increased risk of isolation and destruction.

The battalion commander who receives the strongpoint mission immediately conducts a ground reconnaissance accompanied by the commander of the engineer unit committed to make it viable. In broad terms, their priorities are:

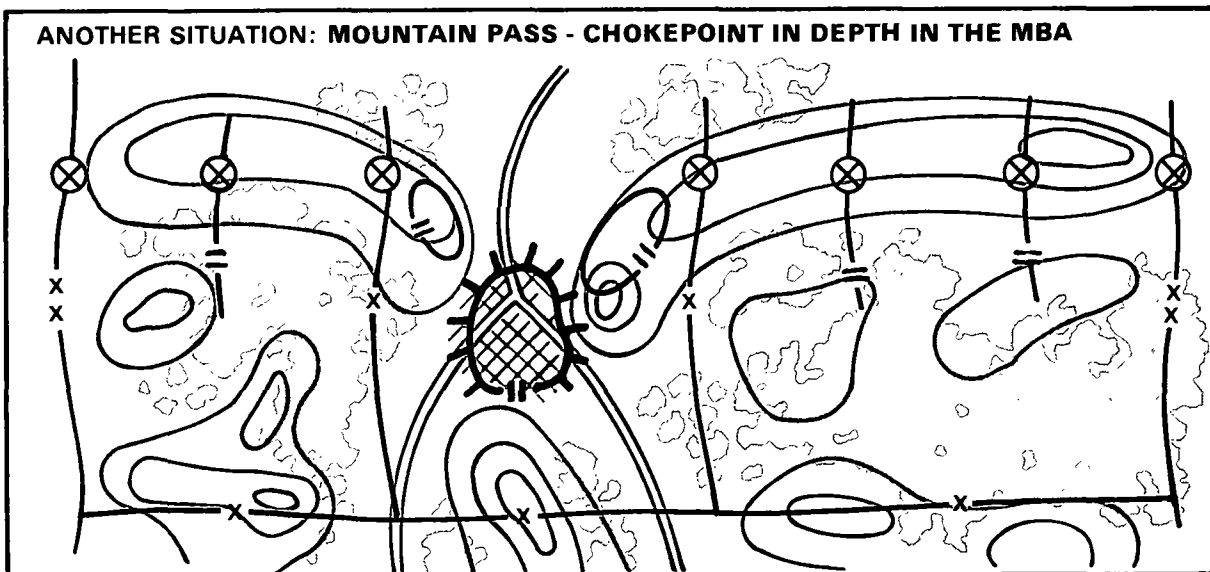
- *Make the position physically impassable to tanks.*
- *Protect the AT weapons with terrain, obstacles, and infantry.*
- *Protect the infantrymen who are protecting the antitank weapons.*

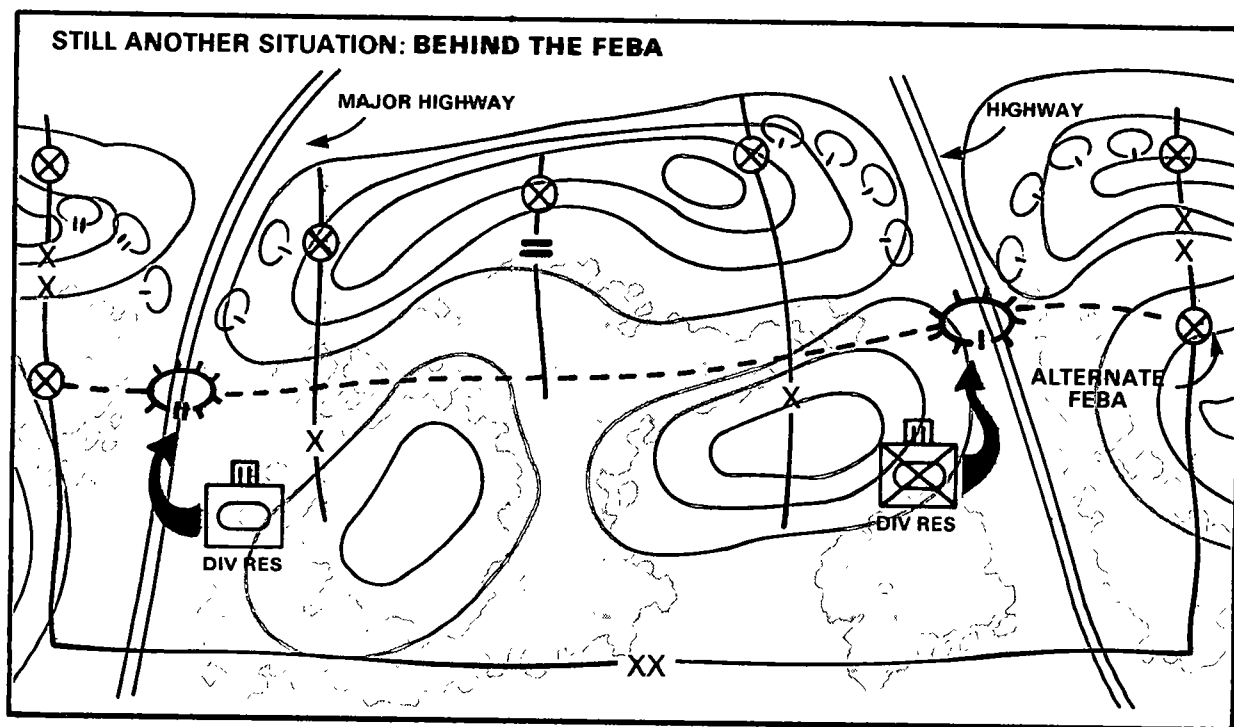
The commander then examines the terrain in terms of the enemy armor approaches to the position. Even though it may not be occupied permanently in a full 360 degree perimeter, units must be able to meet a threat from any direction. The position must be rendered impassable by carefully integrating natural and artificial obstacles including tank ditches, natural and diverted waterways, rubble buildings, minefields, cratered roads and other natural or manmade features which might readily be used.

ONE SITUATION: VILLAGE IN A VALLEY



ANOTHER SITUATION: MOUNTAIN PASS - CHOKEPOINT IN DEPTH IN THE MBA





Security is established around a strongpoint prior to its occupation. The scout platoon, remote sensors, and radar are employed, as appropriate, to screen possible enemy avenues of approach. The scouts also establish contact with units forward of and adjacent to the battalion.

The battalion task force commander then deploys his force to defeat all mounted, dismounted, and air attacks. Infantry units are positioned to defeat dismounted attacks with small arms fire and mounted attacks with LAW and Dragon fire.

Tanks and TOWs are initially positioned where they can engage the enemy at long range and still be protected by the terrain and obstacle system. They can then be moved, as necessary, to alternate positions within the strongpoint to shift or mass fires on an assaulting enemy and to avoid enemy fires.

All positions within a battalion strongpoint are sited to tie in with adjacent positions. Proper positioning also allows the massing of the fires of two or more units against an assault and prevents the enemy from isolating positions and defeating them in detail. Sectors of fire are designated to insure that fires are coordinated between all

positions. Avenues of approach to the strongpoint which cannot be covered by forces in a primary position must be at least kept under surveillance and covered by supplemental positions which are prepared in as much detail as time permits, and occupied on order.

Counterattacks are planned to destroy or eject enemy penetrations of the strongpoint, and to preserve the integrity of the position.

Defense against air attack consists of a comprehensive system of passive measures, such as camouflage and air guards, and of active measures, such as positioning of organic or attached ADA weapons. Provisions are also made for engaging aircraft with small arms.

Reinforcing the Terrain. Artificial obstacles are used to reinforce natural terrain obstacles where required. Their proper use can greatly strengthen the defense. Obstacles can divert enemy forces from covered avenues into open areas where direct fire weapons can engage. In open areas, obstacles can extend the amount of time enemy units will be exposed to fire.

Obstacles should decrease enemy mobility without hindering friendly force maneuver. They reinforce the tactical plan and

supplement battalion task force combat power.

Lanes and gaps through barriers must be provided. A gap is a portion of the barrier in which no obstacles have been constructed and is seldom less than 100 meters wide. A lane is a clear route through an obstacle and is generally a road or path. Company team commanders usually control gaps and lanes in their areas.

Obstacles should be covered by observation, direct fire, indirect fire, and by remote sensors when available.

Artificial and natural obstacles should be tied together so they are more difficult to bypass than to breach.

Obstacles are employed in depth.

The most desired characteristic of a *NATURAL OBSTACLE* is ease of conversion into a more effective obstacle with minimum effort.

EXAMPLES OF NATURAL ANTIARMOR OBSTACLES

- Mountainous terrain and slopes over 60 percent.
- Escarpments (for example, railroad tracks or highways on a steep fill over 1½ meters high).
- Ravines, gullies, or ditches over 5 meters wide.
- Rivers, streams, canals over 150 meters wide and 1½ meters deep.
- Swamps and marshes over 1 meter deep.
- Forests or jungles with trees 8 inches in diameter, or 20 percent slopes with trees as small as 4 inches in diameter. Tree stumps 18 inches high are obstacles.
- Snow over 1 meter deep.
- Built-up areas.

EXAMPLES OF ARTIFICIAL OBSTACLES

- Road craters.
- Abatis.
- Tank ditches.
- Log cribs and hurdles.
- Wire (double apron fences, concertina fences, four-strand fences, tangle foot).
- Mines.

Normally the most effective and least time consuming type of artificial obstacle to emplace is a minefield. Mines delay and canalize enemy movement, lower the enemy's will to fight, and cause fear of sudden and unexpected casualties.

Hasty protective minefields are used for short periods of time or for specific operational missions. They can be laid by company teams, assisted by engineers if available. Each mine is individually placed to take best advantage of likely armor avenues of approach or expected future enemy positions without regard to any pattern or density. Mines must be readily detectable and removable by the installing unit. The battalion task force commander can delegate authority to employ hasty minefields to a company team commander or, on special occasions, to a platoon leader.

All hasty minefields, whether emplaced by the battalion task force or emplaced at task force request, must be recorded and reported in accordance with procedures established by the brigade.

When planning for artificial obstacles, leaders and staff officers must consider:

☐ MISSION

How much time is available?

Can the specified degree of resistance be achieved without artificial obstacles?

Will friendly maneuver be restricted as the battle develops?

☐ ENEMY

Where will he come?

Will he be predominantly infantry or armor?

Where could we force him to go?

How much could we slow him?

☐ TERRAIN

How can artificial obstacles best be tied in with natural obstacles?

Can the obstacles be covered by observation and fire?

☐ TROOP AVAILABLE

Must all work be done by organic troops or will assistance be provided by engineers, artillery, Army aviation?

Command and Control. When the battle is joined, the task force commander must continuously monitor the enemy's advance. He must know where all his units are located, which are engaged at any moment, which are on the move and to what locations. If he is to control the overall maneuver of the battalion task force, he must be able to instantly assess each new situation. He may be required to direct detachment, movement, and reattachment of platoons, thinning a company team in one area to thicken another somewhere else. He must be able to accurately judge time-distance factors if he is to concentrate forces against the major threat. Friendly forces moving along previously reconnoitered routes can cover greater distance in a given time than can enemy battalions feeling their way through unfamiliar terrain, seeking soft spots in the defense. He exercises control by his presence at critical points, by fragmentary orders, visual signals, messengers, and by requiring adherence to SOP.

His total picture of the battle must include the engagements on-going and those to follow. He must be prepared to receive or detach units. If major enemy forces enter his area of operations, he may receive operational control of more company teams. He must be prepared to integrate fresh units

into his scheme of defense on terrain with which they are not familiar. The task force commander's defensive scheme in depth provides a framework upon which new units can be quickly integrated. If the major enemy thrust shifts, he must be prepared to detach units and continue the fight with fewer forces, or to disengage the battalion task force, move it quickly and fight in a new area.

Limited Visibility. There are two general categories or conditions which limit visibility: those which mechanical aids *can* overcome or partially overcome, and those which mechanical aids *cannot* overcome. The first category obviously includes darkness. The second category includes rain, snow, fog or any condition which cannot be at least partially overcome by artificial illumination, image intensification, or radar.

NIGHT

Threat forces routinely continue daylight attacks into the night to maintain momentum. If a hasty attack is stopped, the enemy will conduct a deliberate attack. They normally move and engage targets using artificial illumination (flares, searchlights, infrared equipment). Enemy dependence on active systems can be advantageous to a defending battalion task force equipped with passive night vision equipment.

Enemy dependence on infrared night driving equipment results in slower movement. This allows rapid acquisition by friendly night observation devices. Adjustment of artificial illumination causes maneuvering forces to pause. Either way, defenders have more time to react, concentrate, and engage.

Enemy IR equipment is effective to 900 meters or less. Defenders can identify and engage targets well beyond this range, even in poor ambient light. Defenders can move in relative security and engage an enemy who cannot see them.

In a daylight engagement, the enemy will usually return fire within seconds of being engaged. At night the defender can fire much

longer before the enemy can identify the source and return effective fire.

The enemy may attempt to gain surprise through stealth, using no illumination. Enemy units travel more slowly in tighter

formations following easily identified terrain features along clearly defined avenues of approach. While the battalion task force can defend at night essentially as in daylight, some adjustments particularly at team level should be considered.

ADJUSTMENTS TO DEFENSIVE ORGANIZATION

- Use long-range detection equipment (radar, sensors, night observation devices) on well-defined avenues of approach.

- Redeploy some units and weapons to concentrate along avenues of approach the enemy will more likely use at night (along identifiable terrain features usable for orientation in darkness).

- Use increased numbers of infantry, and scouts, OPs, patrols, and armor killer teams

forward on secondary avenues of approach to detect and slow enemy movement.

- Use nuisance obstacles along likely night approaches to slow the enemy or to alert defenders to enemy presence as they are breached.

- Use OPs and patrols to prevent enemy infiltration *between* battle positions.

- Dismount night driving periscopes to aid observers.

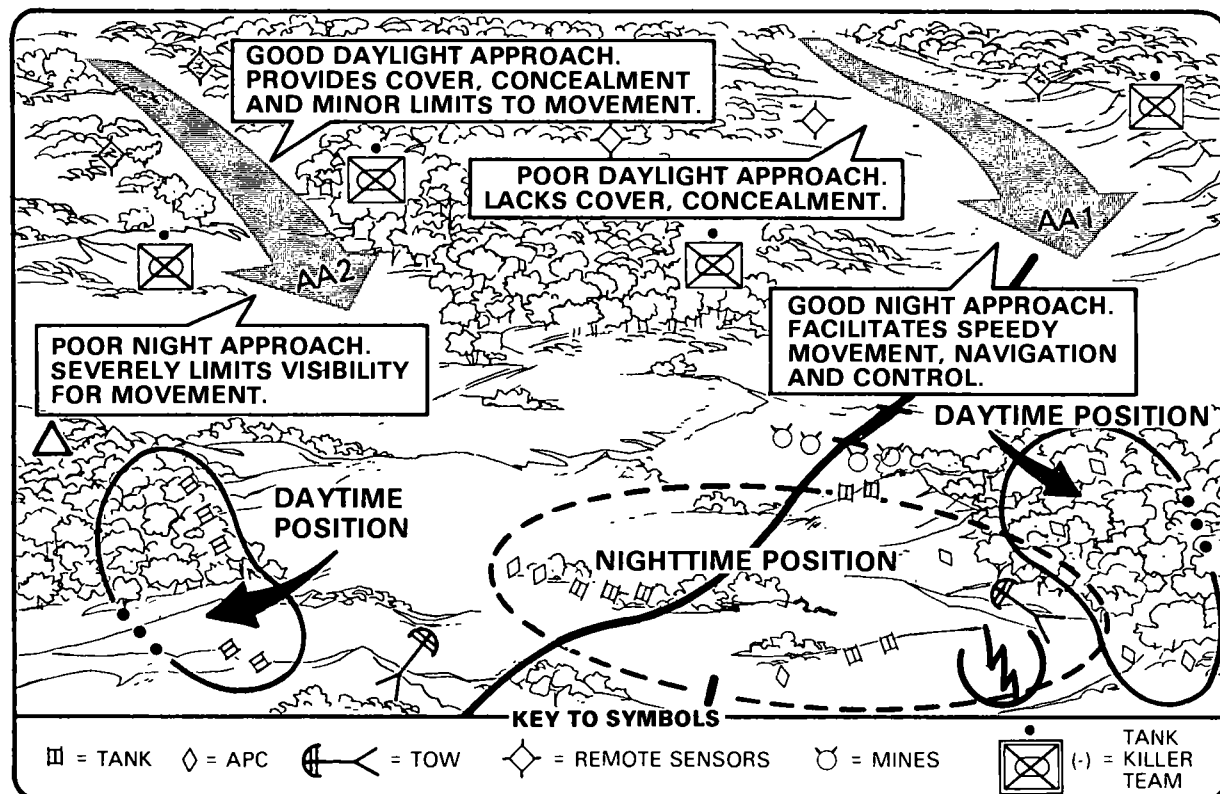
- Plan and rehearse required movement of weapons and units and massing of fires on the approaches the enemy uses.

- Reposition weapons as necessary to take advantage of the disparity between night vision equipment of the enemy and the defenders.

- Plan illumination on or behind likely engagement areas to silhouette enemy forces while leaving defenders in shadows and darkness.

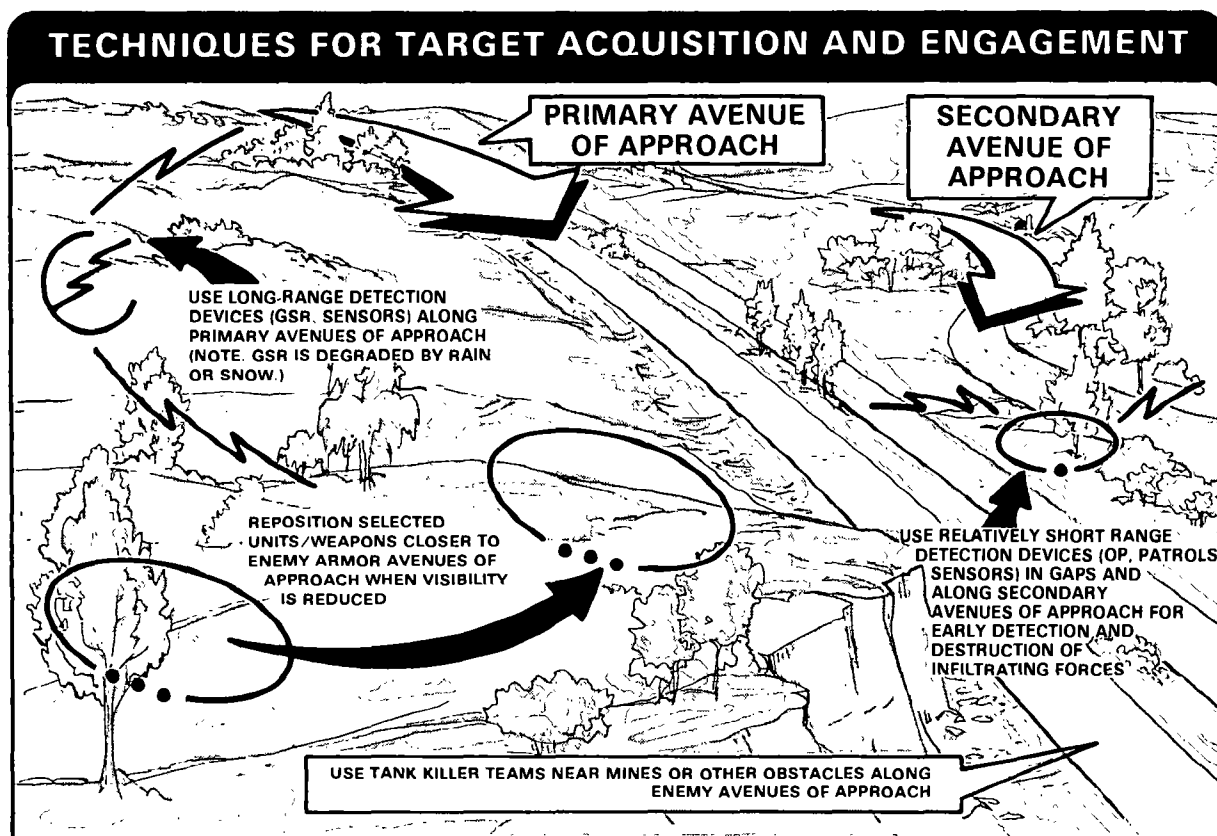
Adjustments to defensive organization should commence before dark. Return to

daylight positions should be completed before dawn.



OTHER CONDITIONS OF REDUCED VISIBILITY

When heavy rain, snowstorms, fog, or any other conditions prevent use of mechanical aids to vision, many of the techniques described for night defense are applicable. Defenders must move closer to the avenues of approach they are guarding. Sensors may still be of value and radar can sometimes penetrate. Techniques for target acquisition and engagement are shown here.



DELAY OPERATIONS

During defensive operations, the battalion task force may be given the mission of conducting a delay operation rather than a defense. The underlying intent of both the defense and the delay is destruction of the enemy. However, when defending, the more immediate goal is to stop the enemy forward of or within your sector or battle area—at great cost if necessary (unless the mission is changed). When delaying, the intent is to

slow the enemy, keeping the task force between the enemy and his objective.

If possible, the delay operation stops him completely. But if either his strength is too great, or because the risk of losing our force in the process is too great, then at least the task force can buy time.

Concept of the Delay. The concept of the delay is to fight the enemy with sufficient force so that he has to take the time to concentrate, again and again, trying to overcome the delaying force. The delaying TF commander places his teams in battle positions which provide for long-range observation and fields of fire. When time permits, he reinforces natural terrain obstacles, creates new obstacles, and emplaces mines to hold up enemy forces in the field of fire of defensive weapons.

The enemy, faced with and engaged by the delaying teams, must take time to deploy. Just when the enemy is bringing his force fully to bear, at the last feasible moment, the delaying force leaves and the time-consuming process must be repeated by the enemy at the next battle position. The TF commander may delegate the authority to leave a battle position to his team commanders when the delay sector is very wide or when he cannot readily observe the action. He will, however, require that team

commanders report the situation to permit him to influence the action appropriately. In other cases—because he can observe the actions in the sector, because of the need to coordinate the movement of the various task force elements, or because of the requirement for the task force to gain every last possible minute of delay—he retains the authority to permit the teams to leave their delay positions.

If the brigade commander requires that the task force delay the enemy forward of a certain line until a certain time, his teams may have to conduct, in effect, a defense. At times he may have to hold key terrain or conduct limited counterattacks. In such a situation he may even have to risk the loss of some of his elements.

The manner in which a delay is conducted depends on the *intent* of the brigade and battalion task force commander—what he wishes to accomplish and the degree of *risk* he will accept to accomplish it.

A task force may conduct delays under any of the following conditions:

■ The task force is required to delay the enemy for as long as possible, but without risking its survivability or tactical integrity. A time limit is usually not specified in this case. Under this condition, the task force and its teams seek to prevent the enemy from closing and assaulting. Teams engage the enemy at maximum range, force him to deploy, then withdraw before he can close. Counterattacks, feints, and ambushes are conducted as opportunities present themselves.

■ The task force is required to hold the enemy forward of a line or location for a specified

time accepting whatever risk is necessary. The delaying force fights longer and harder at each position. Indirect and long-range direct fires are emphasized, but the defensive battle is also fought at mid-range and even, if necessary, at close ranges. The task force commander may direct company teams to hold the enemy forward of a line or location for a specified time. Teams may be ordered to hold ground, a facility, etc., and be required to continue to defend until the time restriction has been met or until new instructions are issued.

The delaying force must maintain a mobility advantage over the attacker through the use of obstacles and superior knowledge and use of the terrain. During the delay, units are positioned to expedite their movement and to make the best use of covered routes. Once movement begins, it is

necessary to coordinate with adjacent units to preclude exposing a flank.

The task force commander deploys his company teams along the enemy's main avenues of approach with maximum firepower forward. Seldom will task forces

retain dedicated reserves. As enemy buildup occurs or as the direction of the main threat becomes more obvious, company teams will be redeployed as necessary to slow or block the enemy advance. The action is conducted much like defense except that frontages are often much wider. Obstacles should be created or strengthened whenever possible.

All available indirect fires should engage at maximum range, taking advantage of range differential, if any, over the attacker's weapons.

When a company team must delay on a wide front, it usually selects platoon positions and delays in sector. Delay lines and phase lines are used to continuously report the location of its platoons to the task force commander. Some portion of the task force must maintain contact while others maneuver to new locations to overwatch or suppress. Counterattacks may be necessary to assist in disengaging a unit.

If the task force is assigned a very wide sector, it uses mounted patrols and various STANO devices to maintain surveillance and contact with the enemy across the entire front. Tank platoons are normally held along the most likely avenues of approach where they can quickly move to a threatened area. Infantry may be employed to conduct surveillance patrols, provide security for tanks and TOW during limited visibility, or cover dismounted avenues of approach. *Their mission is to detect an enemy advance—not necessarily engage them with their weapons.* When the enemy is detected, contact is maintained and delay is initiated by calling indirect fires, attack helicopters, and close air support.

When to Delay. In the CFA, the mission of the covering force and normally that of its task forces, is delay.

In the MBA, delays likely will occur in two sets of conditions:

■ When the enemy attack against a brigade is so strong that the resultant force ratios would be excessive, e.g., 1 to 7 or even greater. Until the division commander can apply additional combat power, he may consider that if that brigade were to try to defend, he, the division commander, would run unacceptable risks of deep penetration in that brigade's sector. Rather, he might direct that the brigade delay the enemy until he can get additional battalions concentrated. He would, in this way, trade terrain for reduced risks to the division and for the time needed to concentrate forces. This delay would most likely be characterized by a requirement that

the brigade keep the enemy forward of a specified line for a specified time.

■ When, especially in the economy of force area, the required combat power to defend is either not available (and will not become available in the foreseeable future) or the forces in this area should pull back because the battle in the area of maximum enemy effort has flowed back. In these cases, the brigade and task force commanders would likely be told, in effect, to do as much damage as possible to the enemy, but don't run any very high risks with your forces: we have to preserve them, there are no others.

DISENGAGING A BATTALION TASK FORCE

A battalion task force may be required to disengage all or part of its forces and move to a new area in order to:

- *concentrate forces there.*
- *avoid combat under undesirable conditions.*

● *conform to movements of other friendly forces.*

● *draw the enemy into an unfavorable situation.*

In order to successfully disengage, the task force commander must:

☐ **Deceive the enemy.** If the enemy knows a disengagement is taking place, he will increase pressure and efforts to bypass and encircle friendly forces.

☐ **Take and keep enemy pressure off the disengaging forces.** Overwatching forces are positioned to block the enemy; fires and obstacles are used to stop or slow his advance. Enemy overwatch elements which can fire on disengaging forces and enemy supporting fire which can disrupt the withdrawal are suppressed.

☐ **Maintain security.** Threat tactics emphasize bypass and encirclement of withdrawing or defending forces. Avenues of approach which he can use to do this must be at least monitored. In addition to ground elements, the Threat uses airmobile, airborne forces, and attack helicopters for these purposes. Be prepared to maneuver to meet any threat. Critical chokepoints along withdrawal routes must be secured.

☐ **Gain a mobility advantage.** Disengagement should take place at night or during periods of reduced visibility whenever possible. Withdrawal routes are reconnoitered beforehand and obstacles are used where and when they will limit the enemy's ability to move without limiting friendly force mobility.

Disengaging Under Enemy Pressure.

When disengaging under enemy pressure the forward company teams normally cover their own disengagement. There are several techniques that may be employed to disengage.

To disengage, all available fires are used to stop the enemy and allow company teams to fire at and *maneuver away* from the enemy. Disengagement from terrain masked positions is easier because units are protected from enemy direct fire from their front. During good visibility, smoke may be used to conceal movement. Where possible, all forward company teams begin disengaging simultaneously, and move over multiple routes away from the enemy. If impractical,

the task force commander disengages his teams in a manner which best preserves the integrity of the force.

THE WITHDRAWING FORCE MUST FIRST SLOW THE ATTACKER'S MOMENTUM

Sufficient pressure must be kept on the enemy to prevent enemy action from disrupting the operation. This may require some teams to become heavily engaged while they cover disengagement of less heavily engaged teams. Under heavy enemy pressure the task force commander must often maneuver his units and mass antiarmor fires to stop or slow the enemy advance before beginning the movement of forces away from the enemy. A heavy volume of antiarmor fires will force the enemy to dismount and slow his advance. Field artillery and smoke will also slow the momentum of a mounted attack. Timing of disengagement under such conditions is critical. Beginning a withdrawal away from a large, rapidly advancing enemy force before its momentum has been slowed could lead to the loss of the entire task force. In most cases, breaking loose will occur gradually.

When disengagement begins, movement of forces away from the enemy is covered by antitank fires. TOW and missile firing tanks should move first because they have the longest range of the task force weapons. Their movement to the next suitable overwatch position is covered by fires of tanks and Dragon. New overwatch positions should provide standoff and allow covering fires for forward units. When the TOW (and missile firing tanks) are in position, infantry and tanks disengage and move away from the enemy, normally by bounds; infantry first, then tanks.

OVERWATCHING FORCES

Disengagement of the task force may be covered by the individual actions of the forward teams or the TF commander may organize an overwatch force from unengaged or lightly engaged units. He deploys this force

in battle positions behind committed units. The task force overwatch force is used to provide additional fires to support the withdrawal of the forward teams or to block enemy approaches through the area. Forward company teams pass through or around the task force overwatch force while it supports by fire and maneuver. The overwatch force defends or delays until it, too, disengages and moves to new positions.

Size and composition of the task force overwatch force are dependent on:

- *Amount of support required by forward teams.*
- *Width of front.*
- *Forces available to form an overwatch force.*
- *Amount of enemy pressure.*
- *Amount of delay or defense expected out of the overwatch force after the disengagement of the forward team.*

If the overwatch force is expected to hold the enemy for a period of time after the rest of the task force has moved, it should be reinforced with additional maneuver, CS, and CSS elements.

Sometimes the higher headquarters will provide a covering force. When this is the case, the battalion task force disengages or fights its way toward the covering force and conducts a passage of lines as described in Appendix F, *Linkup, Passage of Lines and Relief in Place*.

Disengaging When Not Under Enemy Pressure. When enemy action is relatively light, the task force can sometimes slip away quietly before the enemy realizes a withdrawal is under way. This is particularly true when the task force is occupying terrain-masked positions in depth. When time is limited, all teams withdraw simultaneously. In such cases, security can be obtained by rapid movement or by moving at night or during periods of reduced visibility. Noise can be suppressed by field artillery fire or air strikes on nearby enemy positions. Routes should avoid areas that can be scanned by enemy radar. If there is danger of pursuit, teams move by bounds.

**THE OVERWATCH ELEMENT
USUALLY INCLUDES PART OF
EACH UNIT IN CONTACT**

When an overwatch force is employed, its principal function is to deceive the enemy into believing that the task force is still in position. Nevertheless, the overwatch force must be prepared to fight if attacked. The task force overwatch force in this type of withdrawal usually consists of a platoon from each team in contact, or a squad from each platoon in contact, although an entire team may be charged with this mission. The commander supplements deception efforts by maintaining dummy radio transmission and carefully controlling ground traffic to insure the enemy is not alerted to the withdrawal. The task force commander will normally leave the executive officer in command of all team overwatch forces, but may give this responsibility to one of the team commanders.

COMMAND AND CONTROL

Regardless of whether the task force is under pressure or not, the task force commander must quickly and precisely specify to the disengaging unit the scheme of maneuver. Planning for disengagement should be a part of any defensive operation. Predesignated phase lines, battle positions, routes and checkpoints located throughout the task force sector aid such operations. During the actual disengagement, the task force commander will establish times, priorities and routes of movements, location and composition of covering forces, and assembly areas by frag orders, using and modifying control measures as required.

The task force commander must specify:

- The scheme of maneuver
- Time of withdrawal
- The new task force mission
- The location of new positions
- Routes to new positions

He normally specifies:

- Size and composition of advance parties
- Size and composition of overwatch forces

Combat Support and Combat Service Support. The task force commander will normally begin moving nonessential elements of the task force trains out of the task force area as early in the disengagement as possible to provide for their protection and minimize congestion when maneuver elements begin movement. Advance parties from the task force and company teams accompany these elements to aid in the organization of new positions and to post routes. During daylight disengagements, GSR elements normally move with them; but will remain with forward elements when visibility is limited and terrain allows proper employment. The S4 usually is charged with supervising this movement. The scout platoon may also move with the trains element when necessary to provide security and to post routes.

COUNTERATTACK

Offensive action is necessary to gain the initiative, maintain the continuity of the defense, and reposition forces to defeat following enemy echelons. A battalion task force must be prepared to counterattack whenever the opportunity for success is great. Some counterattacks are planned in great detail. Others, like hasty attacks, are planned and executed rapidly. Counterattacking forces must complete their tasks and regain covered positions before overwatching or following enemy echelons can interfere. When so ordered, a counterattack may be conducted by the task force as a whole or may be conducted by teams under task force control. Counterattacks are used to destroy weakened enemy units. When counterattacking, units maneuver only to the extent necessary to place effective fire on the enemy. Most often, this will require movement only from one battle position to another, using covered routes. They close with the weakened enemy force only when absolutely necessary to eject it.

The task force may be ordered to counterattack to regain terrain critical to the defensive system. When this is the case, the task force mounts a hasty attack. When counterattacking, it is necessary to

concentrate sufficient combat power to overwhelm the enemy force. Unlike other kinds of offensive action, in a counterattack the enemy is often in the open and unprepared to defend.

In rapidly planning a counterattack, the commander has the advantage of knowing the terrain better than does the enemy. He must evaluate the enemy situation in the immediate area and also consider the time and distance factors relating to the following enemy echelon. Then he must determine which units are available, where they are located, and where they must be positioned after the counterattack, and plan for suppression as necessary to isolate the enemy to be attacked. Platoons may be attached or detached from one team to another for a particular counterattack. Well-trained troops can respond to rapid changes in mission and task organization.

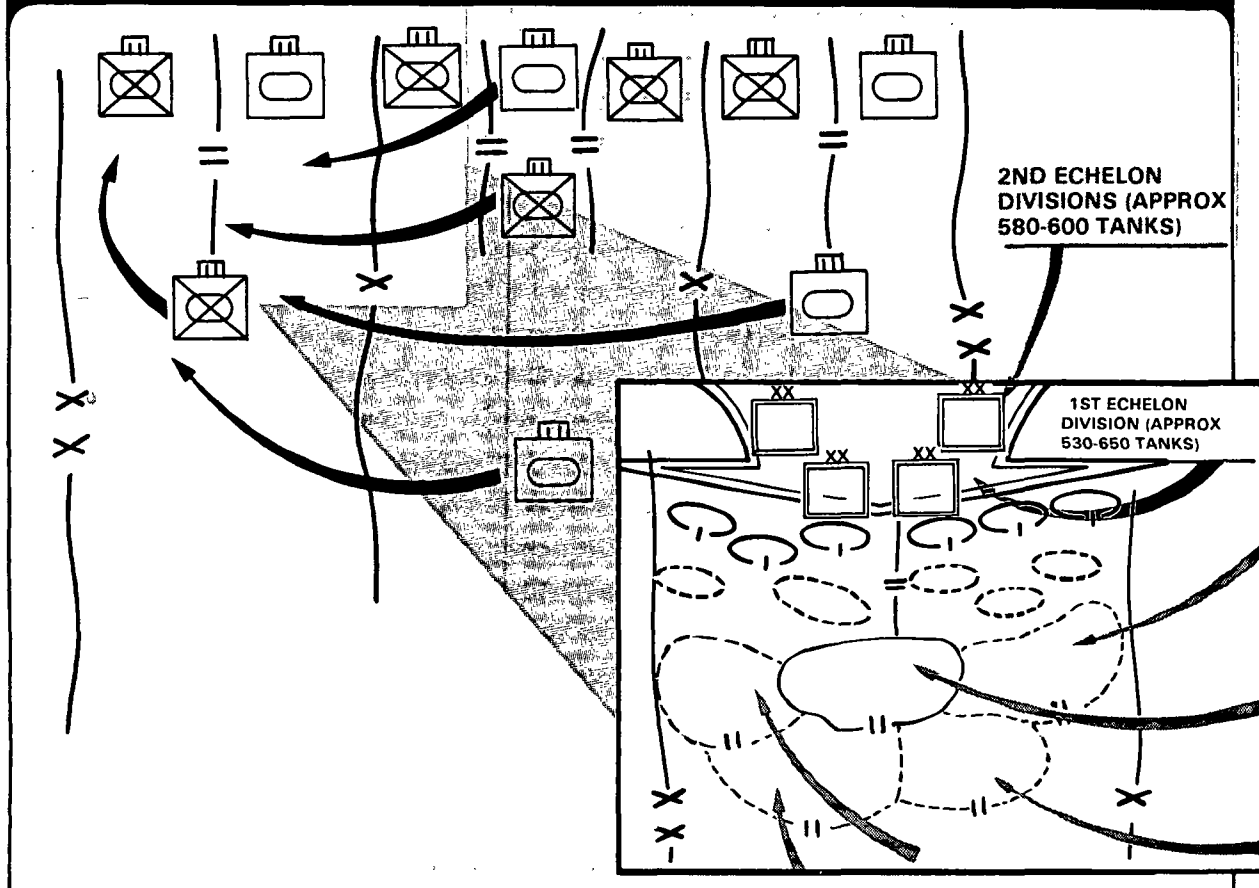
CONDUCT OF DEFENSIVE OPERATIONS

The following examples illustrate how a battalion task force applies the principles previously discussed. They should not be used as absolute models to be rigidly copied in training. These scenarios are only examples of how particular battles *might* be fought. Every commander must apply the principles according to his experience and best judgment in each new situation.

When the enemy decides to make a breakthrough attack, he concentrates powerful forces in a small area. He would like to attack in the sector of his main effort with a 6:1 or greater superiority. He seeks to attack a US platoon with a battalion, a company with a regiment, and a battalion with a division. He seeks to power his way through the MBA area, strike deep to destroy the support, the reserves, the command and control.

US division commanders seek to detect the area of the enemy breakthrough effort in time to reinforce and reduce the adverse combat ratio to no worse than about 3:1. In the early stages of battle, the force ratio is likely to be worse than 3:1, at the level of the company, battalion, and brigade.

CONCENTRATION TO MEET ENEMY ATTACK



As division and brigade commanders estimate, identify, and confirm the direction of movement of the main enemy forces, they concentrate battalion task forces to meet them. This concentration may take place prior to the start of battle or during the battle. The earlier enemy intentions are understood, the easier it is to coordinate the shifting of maneuver units, fires and other support. Of course, commanders must recognize that the enemy's advance may not conform to our estimates of his intentions, and also that the enemy's plan will be modified as the attack progresses.

In the area of defending brigade we might expect a breakthrough effort of four (or even more) divisions. They may be either motorized rifle or tank divisions. This massive concentration of enemy forces would present a large target array to the defending task forces and companies. The brigade

commander could expect to receive six or seven battalion task forces to stop such a breakthrough attempt. These task forces would be fitted to the terrain as they arrive in the brigade sector according to the brigade commander's concept.

The amount of freedom of action the brigade commander will give his task forces will depend on how closely the action of the task forces have to be coordinated. Further, especially in the area of maximum concentration, the brigade commander will likely retain the prerogative of determining when a task force is to move from one battle area to another. In areas of lesser concentration, especially in economy of force areas, the brigade commanders will more likely assign relatively deep sectors to the task forces and give them greater freedom of action to fight the battle on subsequent positions in depth.

equipment can locate any radio that transmits in a forward area, particularly if there is line-of-sight between the direction finder and the radio. The enemy can also monitor radio messages to gain information about our forces.

Electronic counter-countermeasures (ECCM) are used by the battalion task force to prevent or delay enemy use of information of value gained from intercepted radio or telephone communications. ECCM include communication security and anti-jamming procedures.

Communications security (COMSEC) denies or delays unauthorized persons from gaining information of value from telecommunications.

Use authentication to insure that the other station is an authorized one. Use only approved codes to prevent enemy cryptanalysis.

Change frequencies and call signs to deny the enemy information about identification and disposition of tactical units.

Restrict the use of radio transmitters.

Use wire or messenger whenever possible. Do not use the radio as a convenience. Use it only when required for tactical operations.

Enforce net discipline and insure proper radio-telephone procedures.

Site antennas with a hill mass or other obstacle between them and the enemy.

Anti-jamming Procedures used by radio operators to reduce enemy jamming effects are:

● **Recognition.** Try to find what is causing the interference. Do not immediately assume jamming, because symptoms are often similar to other types of radio or radar interference. Remove the receiver antenna and determine whether a signal is being generated internally by the receiver. If interference decreases with the antenna

removed, then the interference is external and may be jamming.

● **Continued operation.** Radio operations should continue in a normal manner once jamming has been identified so that the enemy cannot determine the effect of his jamming. The rule to follow is: during jamming, continue operations unless ordered to shut down.

● **Reporting.** All operators must report jamming to their next higher headquarters. This report should be sent by another means of communication, like wire or messenger. A jamming report format is included in the communications-electronics operating instructions (CEOI).

● **Use low power.** When transmitting on lower power, the opportunity for an enemy to hear the signal is reduced. If the signal can't be heard, the transmitter can't be located by radio direction finding.

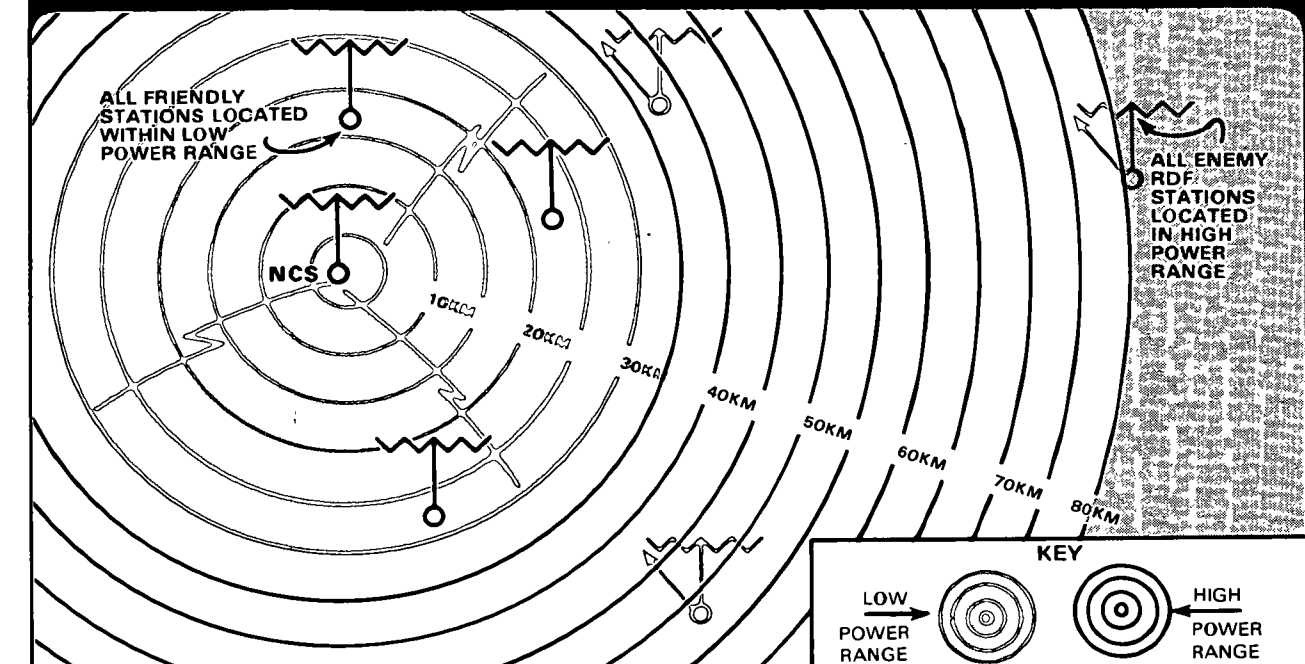
Obviously, if the friendly station can't hear the signal either, the radio is of little use. The trick is to use only enough effective radiated power (ERP) to be heard within the net, but not enough to be heard by the enemy.

Unfortunately, tactical VHF radios have only two power settings: *low* and *high*. In most instances, the low position is preferred. Here's why:

A tank platoon will operate in formations in which its tanks will be separated from one another by about 100 to 1,000 meters, but the tanks' AN/VRC 12, 46, and 47 radios transmit an effective signal which may be received by radio direction finders at a distance well in excess of 10kms, perhaps to 30kms, even when the radio is set on low power. On the high power setting, a radio direction finder (RDF) may be able to intercept the signal at a distance of 30 to 80kms. Airborne radio direction finding (ARDF) can certainly intercept the high power signal at a distance of 80kms.

Bending the AS-1729 whip antenna toward the ground and keeping it in the tied down position reduces the ERP below that of the AN/VRC 12 and AN/PRC 77 low setting.

EFFECTIVE USE OF LOW POWER



This technique will reduce the ERP at certain frequencies, particularly between 60 and 76MHz. Bending the antenna also deforms the radiation pattern in the horizontal plane which is another counter-RDF technique. (See Chapter 2, TM-11-5820-667-12, for additional information.) Always use Antenna Tip Assembly to prevent eye damage from tied-down antennas.

● **Reduce communication time.** Another method to reduce the chance the signal will be intercepted by the enemy is to use radio only when necessary. Whenever possible, substitute landline communication. Use personnel as guides rather than providing direction and location over the radio. Once station identity is confirmed (ALPHA ONE BRAVO ONE SIX, THIS IS ALPHA ONE BRAVO TWO SEVEN), eliminate call sign redundancy by using the last letter of the changing portion of the call sign plus the suffix (BRAVO ONE SIX, THIS IS BRAVO TWO SEVEN). Call sign procedure is not a substitute for authentication. Limit conversation to less than 30 seconds. A 20-

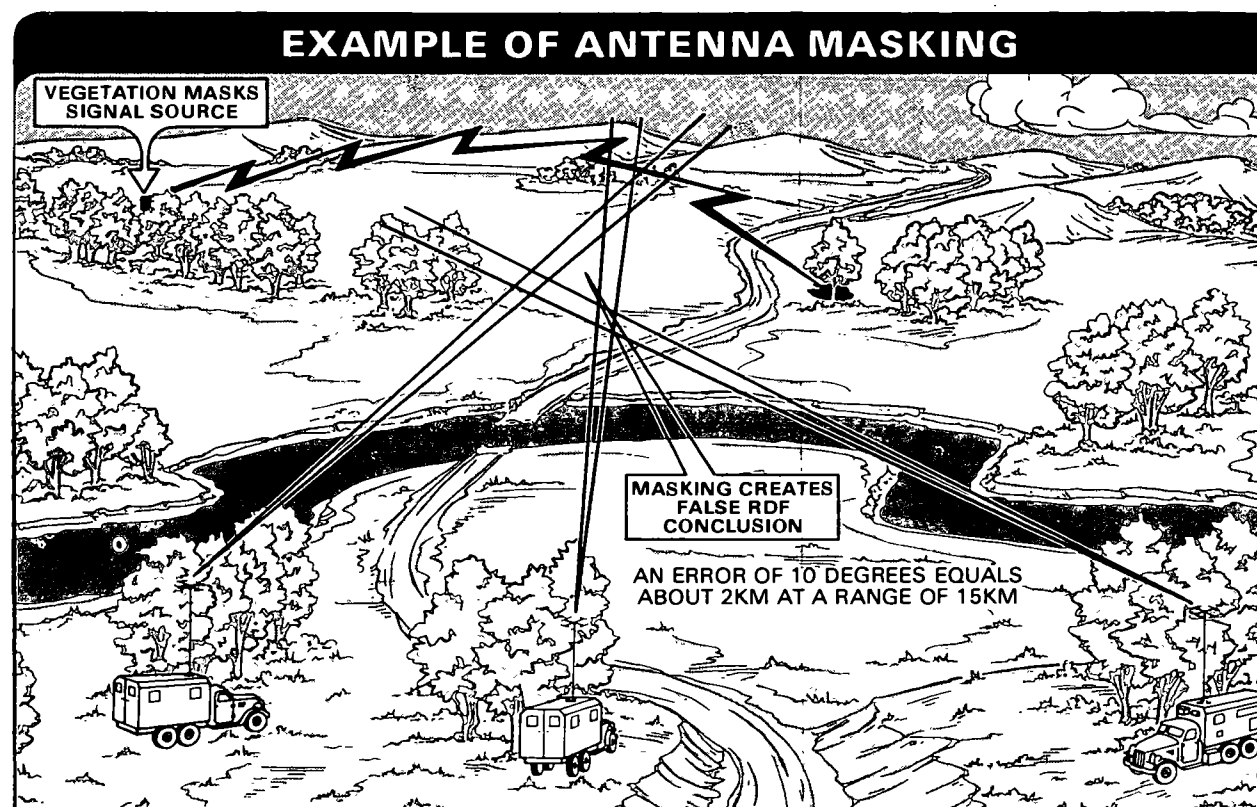
second signal is better. A 5-second signal is ideal.

Enemy RDF is not as effective once an offensive operation has begun. We are usually moving too fast. Short communication time is not as critical during the battle, but short communication as a counter-RDF technique is vital during the preparation phase and the approach to the objective or in the defense. Also, since the discovery of the displacement of a reinforcing unit is critical, the reserve force especially should use short communications.

An observant enemy notices that in too many instances US Army tactical communications may be used as a substitute for complete battle planning. Analysis of US tactical communications indicates that most communications used in training exercises are explanatory, not directive, in nature. Tactical communications should be used to rapidly convey decisions, to key standing operating procedures, and to direct alternative courses of action. Execution of the concept must be inherent in training, planning, ingenuity, and teamwork.

FOLD THIS PAGE OUT

● *Use a mobile antenna.* A reduced height VHF ground plane (RC-292) antenna can be mounted into a pole holder welded to the front bumper of a M151, M715 truck, or to an APC, and secured with guy wires. This procedure provides a highly mobile command net antenna which can be rapidly relocated and does not tie a command post to an antenna array. The mobile RC-292 has excellent applications in desert operations.



● *Antenna masking.* Antenna masking is the technique of hiding radio signals behind terrain. It is an inexpensive method to beat RDF. Radio waves bend; they are reflected by buildings and mountains. When this happens, it is difficult to determine the original direction from which the wave was transmitted, but the strength of the signal is affected very little. A radio operator can use this principle to his advantage by attempting to place terrain obstacles between the transmitter and the FEBA while affording an unblocked path to the intended receivers.

Hills and dense forests also provide terrain obstacles. Antenna masking also occurs when antennas are positioned on the back slopes of hills. A radio operator should erect antennas as low as adequate communication permits, and, in all cases, *antennas should be camouflaged to blend with terrain.*

● *Authenticate.* Be aware of imitative communications deception (ICD). Authenticate. ICD is frequently used by an enemy to prolong communications. RDF requires prolonged communications. *Don't be caught by the lure.*

SUMMARY

The task force commander personally becomes involved with gathering combat information and intelligence. He must learn all he can about the opposing force to plan and conduct a successful battle. At the same time, he insures the protection of his unit from surprise and denies information about his location and plans to the enemy.

The scout platoon performs reconnaissance and security missions for the task force.

Reconnaissance operations are termed route, zone, and area, according to the information desired.

Screening operations give early warning of enemy approach.

Patrols, ground surveillance radar, and remote sensors help gather enemy information.

Operations security protects task force plans through physical, signal, and information security measures.

Camouflage, light and noise discipline, good electronic counter-countermeasures are combined with proper movement techniques and suppression to degrade the enemy's ability to see us.



CHAPTER 7

Combat Support

OVERVIEW

THE TASK FORCE COMMANDER brings together and puts into action the combined arms team. The concerted employment of the available combat and combat support gives the battalion task force its *combat power*.

Combat support is provided by the battalion task force's combat support company and by divisional and non-divisional units. In both the tank battalion and mechanized infantry battalion, the combat support company has a heavy mortar platoon, scout platoon, air defense section, and ground surveillance radar section. The mechanized infantry also has an antitank platoon; the tank battalion has an armored vehicle launched bridge (AVLB) section. The mortar platoon and the AVLB section are discussed in this chapter. The other elements are covered in chapter 6 (scout platoon and ground surveillance radar section), appendix I (air defense section), and appendix J (anti-tank platoon).

The battalion task force commander assigns direct support or general support

missions to each platoon or section of the combat support company or attached elements to company teams. Thus, the combat support company headquarters seldom controls its elements in combat. It does provide administrative and logistic support to elements not attached to other units. At times, the company headquarters may control a tactical unit or serve as the alternate operations and intelligence center for the task force.

Support from divisional and non-divisional units includes fire support (field artillery, US Air Force close air support, and naval gunfire), Army aviation, engineer, air defense, military intelligence, and military police.

CONTENTS

	PAGE		PAGE
OVERVIEW	7-1	Defense	7-8
FIRE SUPPORT	7-2	Counterfire	7-8
MORTAR FIRE SUPPORT	7-3	FIRE SUPPORT COORDINATION	7-9
Support Missions	7-4	FIRE REQUEST CHANNELS	7-10
Operations	7-4	OTHER SUPPORT	7-11
Coordination	7-5	The Armored Vehicle Launched Bridge (AVLB) Section	7-11
Communication	7-5	Army Aviation	7-13
FIELD ARTILLERY SUPPORT	7-5	Engineers	7-13
CLOSE AIR SUPPORT (CAS)	7-6	Air Defense Support	7-13
NAVAL GUNFIRE SUPPORT	7-7	Military Intelligence Support	7-13
FIRE SUPPORT PLANNING	7-7	Military Police Support	7-14
Offense	7-8	SUMMARY	7-14

FIRE SUPPORT

The battalion task force commander complements his scheme of maneuver and influences the battle with fire support. In addition to the four 4.2-in. mortars from his combat support company (and 81mm mortars in mechanized infantry companies), he usually has an artillery battery of six 155mm howitzers in support of his task force. More artillery can be made available, and, at times, close air support and naval gunfire may be in support.

Fire support improves the task force's direct fire by:

- | | |
|---|--|
| <ul style="list-style-type: none"> ● Blinding enemy armor forces. ● Suppressing and blinding other enemy direct fire weapons. ● Isolating targets. ● Showing the enemy and forcing him into | <p>areas where the full power of TOW, tanks, scatterable mines, and artillery can take effect.</p> <ul style="list-style-type: none"> ● Providing separate communications channels for additional combat information, intelligence, and emergency command nets. |
|---|--|

Fire support enhances maneuver by:

- | | |
|--|---|
| <ul style="list-style-type: none"> ● Destroying targets. ● Containing enemy withdrawal and lateral moves. ● Deceiving the enemy through support of feints. ● Assisting economy of force operations. ● Screening with smoke or isolating areas with scatterable mines. | <ul style="list-style-type: none"> ● Covering attacks with overhead variable time (VT) fires against enemy RPG and infantry. ● Suppressing long-range ATGM. ● Providing high rates of fire under all weather conditions. ● Reducing effect of enemy artillery by active counterfires. |
|--|---|

The commander's greatest problem is how to exploit all of his combat power—maneuver, direct fires, and fire support—at the critical time and place. During an engagement there will be a multitude of targets to service in a very short period of time. Individually, the task force commander does not have time in a few short minutes to integrate the total effects of all the weapon systems available to him in terms of concentrated combat power. His right hand man for fire support is his fire support officer (FSO) who is Fire Support Coordinator (FSCoord) of the task force. The FSO is skilled in maneuver tactics and techniques and procedures for integrating each part of the fire support system into the

scheme of maneuver. Each company has a fire support team (FIST) headed by a field artillery lieutenant who is the FSCOORD for the team commander. He is the "front end" of all the fire support systems which put steel on the target. *It is important for the task force commander to know that his FSO and the FISTs work for him.*

Effective maneuver and fire support is possible by continuous and concurrent planning and execution between the TF commander, his staff, and his fire support coordinators. Don't hand the FSO the scheme of maneuver and tell him to support it. This is wrong. The availability or nonavailability of fire support may drive the scheme of maneuver and have considerable influence on the task organization. Fire support can often take care of situations so troops need not be used. Consider these facts *from the beginning*—when the concept of the operation is first thought out.

**THE RESPONSIBILITY FOR
INTEGRATING MANEUVER AND
FIRE SUPPORT BELONGS TO THE
TASK FORCE COMMANDER—THE
FSCOORD HELPS HIM DO IT**

MORTAR FIRE SUPPORT

The heavy mortar platoon of the combat support company provides indirect-fire support to the battalion task force. The platoon has a headquarters section and four mortar squads. Each squad is equipped with one carrier-mounted mortar. The mortars can fire high explosive (HE), white phosphorous (WP), illumination, or chemical (CS) ammunition. *Mortar fire can kill and suppress enemy soldiers and weapons and can conceal the movement of the task force.*

The fire support team (with each company team) provides forward observation. In a mech-heavy company team, this FIST has a headquarters (that works with the team commander) and one forward observer (FO) party per platoon. However, everyone in the company team should be trained in the call and adjustment of fires.

Support Missions. The mortar platoon may be placed in *general support* (GS), *direct support* (DS), or *attached*.

☐ *General support* is most often used and requires the heavy mortar platoon to support the battalion task force as a whole. This allows the task force commander to concentrate the fires of the platoon where they are most needed. Normally, he assigns priority of fires to one company team. This priority can be quickly shifted as the attack or defense develops.

☐ *Direct support* requires the heavy mortar platoon to respond to requests for fire from a designated unit and from the battalion task force command group. Occasionally, a direct support mission may be given to the heavy mortar platoon when the battalion task force commander wants to concentrate all the fires of the platoon in support of one company team for an extended period of time. *A direct support mission should not be given to the heavy mortar platoon routinely*, since it degrades the platoon's ability to respond to calls for fire elsewhere in the battalion task force area of operations.

☐ *Attachment* binds the platoon to a designated company team and requires the platoon to *exclusively* support that company team. The heavy mortar platoon is seldom attached to a company team, and should be attached only when a company team is operating some distance from the battalion task force and there is no other way to provide effective support. Of the three, this is the *only* mission that requires the supported unit to provide logistic support for the heavy mortar platoon.

The battalion task force commander considers the available field artillery support, and then determines which of the three ways best suits battalion task force requirements for an operation.

The battalion task force commander or S3 must know the location of the heavy mortar platoon at all times. In the defense, the

platoon will usually be instructed to locate in or near a battle position. In the offense, the platoon may be given a series of positions or an axis of advance. In either case the platoon may be directed to reposition or may bound forward and report when it does so. The platoon leader must stay abreast of the developing battle through reports from forward observers and *be ready to fire immediately upon request*, whether moving or stationary at the time a request is received.

Operations. Mortars should be located on a good hardstand which also provides cover and concealment from enemy visual observation, radar, and other target acquisition means. The position must be large enough for dispersion of more than the usual 35-40 meters between mortars when enemy counterfire is expected, and must permit rapid displacement. Forward edges of tree lines, when masked by a hill or ridge line to the front, are good mortar positions. When operating under heavy counterfire conditions, the platoon should displace frequently, so alternate positions must be planned.

Another way to avoid enemy detection is to use the charge and elevation combination that gives the lowest trajectory for a round. This can degrade enemy capabilities to track the round and locate the platoon.

The heavy mortar platoon usually provides its own local security. Provisional rifle squads are organized from crews and assigned sectors to defend against attack by enemy ground forces. LAW are carried and all personnel are trained in their use.

When necessary, the heavy mortar platoon can split into two sections of two mortars each. When this is done, the fire direction center splits, one half accompanying each section. The platoon most often splits when moving to a new position. One section remains in place until the other moves to the new position and is ready to fire. This technique provides for continuous support of the battalion task force.

OFFENSIVE OPERATIONS

During offensive operations, the heavy mortar platoon is most often used in general support of the battalion task force. Priority of fires may be given to a leading company team as previously described. For some operations such as deliberate attacks, the heavy mortar platoon may control the fires of some or all company team mortars to permit concentration of fires. As a general rule, the platoon is positioned about 1,000 meters to the rear of leading battalion task force elements.

When preparing for the operation, at least three subsequent positions along the line of advance, about 2,000 meters apart, are identified from a map reconnaissance. Mortars then displace as required to support the operation.

DEFENSIVE OPERATIONS

In defensive operations, the heavy mortar platoon is most often used in general support. As in the attack, the fires of all company team mortars may be controlled by the heavy mortar platoon. Mortars are positioned where they best cover avenues of approach into the task force area of operations, generally 1,000 meters to the rear of supported elements as in the attack. Positions are prepared and reconnoitered and ammunition is prestocked throughout the battalion task force sector. Positions are occupied, vacated, and reoccupied as the battle develops. When defending over wide frontages, it may be necessary to split the heavy mortar platoon in order to provide adequate coverage.

Coordination. The heavy mortar platoon operates under the staff supervision of the battalion task force S3 or the battalion task force fire support officer. Its fires are planned and coordinated as part of the overall fire support plan. Regardless of the type of operation, firing data is determined by the platoon fire direction center for all planned targets before the operation begins. During an operation, mortars are laid, ready to fire on priority targets as determined by the

battalion task force fire support officer or the supported company team commander. As target lists are revised and modified by company team forward observers, new data is computed and mortars shifted to other priority targets.

The mortar platoon leader or, in his absence, the platoon sergeant selects the number of mortars to fire and the number and type of rounds to be fired. Number and type of rounds for particular targets or missions may be specified by request by SOP.

Communication. The battalion task force mortar platoon operates in the battalion task force command radio net and the heavy mortar platoon command net. The platoon fire direction center also operates in the supporting field artillery fire direction net. Whenever possible, wire should be used between the platoon and the battalion task force tactical operations center. The supporting field artillery unit may lay wire from its fire direction center (FDC) to the heavy mortar platoon FDC.

FIELD ARTILLERY SUPPORT

While the commander has complete control of his mortars, his control of the field artillery depends on the mission or status assigned to those units by higher headquarters. Supporting units may be designated according to tactical mission (*direct support* or *general support*) or status (*attached* or *operational control*).

■ **Direct support** units respond immediately and independently to the task force's needs. A field artillery battalion, for example, is placed DS to a brigade. The battalion establishes communications and provides FSOs to the brigade and the task forces. The brigade commander sets priorities for support of the task forces.

■ **General support** units respond to the unit which they support. If GS to the task force, they fire for the task force; if GS to brigade, they are directed by that headquarters.

**THE BRIGADE COMMANDER
SETS PRIORITIES AND DIRECTS
THE USE OF FIELD ARTILLERY
IN SUPPORT OF THE BRIGADE**

Attachment and operational control place the artillery units immediately responsive to the task force.

A battalion task force is normally supported by a field artillery battalion DS to the brigade. Unless a task force is conducting covering force or separate operations, only a portion of the field artillery battalion will support the task force. The brigade commander decides how much field artillery support will be available to the task force from the DS battalion.

During movement to contact, when enemy action is expected and responsiveness is crucial, the fires of a battery may be dedicated to a company team. In this case, the total firepower of the dedicated battery is immediately available to the company team, especially to suppress enemy direct-fire weapons.

Maximum effectiveness of the fire support system requires thorough planning and coordination. But time is usually scarce during heavy battle. And normally the battle unfolds in unplanned ways. The field artillery is tuned to quickly provide the fires when and where the commanders need them. The FSO (working with the task force commander) and the FIST chiefs (working with the team commanders) are the key to the responsiveness. They monitor and evaluate the battle situation, anticipate requirements, help keep the artillery units informed, recommend fire support, respond to requests, call fire missions, and adjust fires.

CLOSE AIR SUPPORT (CAS)

The battalion task force may be supported by attack aircraft. Because of its large and varied ordnance load, the tactical fighter bomber is the best weapon to use in attacking well-fortified enemy positions. It can destroy hard targets quickly and effectively. Tactical air fire support should be integrated into the battalion task force scheme of maneuver and used simultaneously with other fire support means.

A tactical air control party (TACP) normally operates with the task force to advise the commander and his staff on integration of close air support with ground operations to coordinate and direct close air

strikes. A TACP includes an air liaison officer (ALO) and a forward air controller (FAC). Tactical air strikes are normally controlled by FACs, but Army personnel can control air strikes when FACs are unavailable. The FAC, when operating with a committed company team, can request through the battalion ALO *immediate* CAS from the direct air support center (DASC) normally located near the corps tactical operation center (CTOC).

The battalion task force air liaison officer, operating in the fire support coordination center (FSCC), will monitor all such requests and subsequent corrections/directions transmitted to the strike aircraft.

Preplanned CAS requests can originate from any company team and are forwarded through the battalion task force FSCC. These requests are processed by the TF S3-air in conjunction with the ALO. After approval of the TF commander, the FSCoord forwards preplanned CAS requests to the brigade FSCC for further process and eventual transmission to the appropriate action agency.

NAVAL GUNFIRE SUPPORT

When operating by a coastline and gunfire support ships are within range, naval gunfire can be a highly effective fire support means. A shore fire control party (SFCP) of US Navy and Marine personnel may be attached to the battalion task force. The SFCP has one liaison team and one spot team which provide ship-to-shore communications. The liaison team operates in the fire support coordination center and provides naval gunfire planning and execution expertise to the battalion TF commander in coordination with the FSCoord. The spotting team is further attached to one of the committed company teams and provides observation (naval gunfire) expertise to the company team commander in coordination with the FIST chief.

FIRE SUPPORT PLANNING

Fire support planning begins with the task force commander's guidance and ends when the operation ends. It tells team commanders

how the task force commander will allocate means to support maneuver elements, priorities, how to obtain support, limitations, and other items of interest to them. It tells those involved with fire support their role in the commander's concept, mission assignment, march routes, restrictions, and coordinating instructions for counterfire, air defense suppression, and priorities.

The fire support plan is not always written. Neither does it follow any prescribed format. But it normally includes a subsection for each fire support agency involved in the operation. Above the battalion FSO level, the process is more structured.

Fire support planning can be termed *formal* and *informal*.

Formal planning deals with specific operations. When time permits, the plan may be written and included in paragraph 3 (with subparagraphs for each support agency) of the operations order.

Informal planning is dynamic, unpublished, and continually updated.

Both are meant to ease the exchange of information and the use of fire support assets. The plan contains only those target lists and information needed for each fire support means to assist the task force.

The task force commander reviews the plan to insure that it is integrated with his scheme of maneuver. The target list is given to company teams, the task force mortar platoon, supporting field artillery, and other key elements. The list is also provided to the DS battalion fire direction center (DS BN FDC) and the brigade FSO. The brigade FSO reviews all task force lists, eliminates duplication between lists, and adds targets of brigade interest. He may also pass targets more appropriate for attack by another fire support means (close air support, for example) to that agency and informs the task force FSO of his actions.

Company team commanders may request that additional targets be added to the task force target list. Targets originated by the company team are assigned a letter/number by the FIST chief from a block of numbers

provided by the task force FSO. As additional targets are requested by company team, they are reviewed by the FSO who eliminates duplications and includes them in the task force fire support plan.

Offense. Prior to an attack, harassing and interdiction fires can be planned to keep the enemy off balance, cause casualties, disrupt his defensive preparations, hamper his ability to resupply his forces, and impede the movement of his reserve. Preparation fires are usually delivered in a prearranged sequence to degrade enemy defenses prior to the arrival of attacking forces. *The decision to fire a preparation is normally made by the brigade or division commander.* When a preparation is to be fired, the battalion task force FSO provides targets of interest to the task force commander and to the brigade FSO for inclusion in the preparation.

Factors which influence a brigade or division commander's decision to fire a preparation are:

- ☐ Will the effect offset the loss of surprise?
- ☐ Are sufficient targets available and known to warrant a preparation?
- ☐ Are there sufficient fire support assets to attack the targets effectively?
- ☐ Can the enemy recover before we exploit the fires?

Fires during the attack are fires planned *short of, on top of, and beyond* the objective. Fires *short of* the objective suppress the enemy weapons and block observation which could interfere with maneuver forces moving from the line of departure. Fires *on* the objective soften it up by suppressing the enemy and supporting assault company teams. Fires *beyond* and to the *flanks* of the objective support the battalion task force's coordination and preparation to continue operations and impair the enemy's ability to counterattack.

Defense. In the defense, the following categories of fires would be planned:

■ *Harassing and interdiction fires* disrupt the enemy's preparations for attack, hamper his ability to resupply his forces, impede movement of his reserves, and delay and disorganize his approach.

■ *Counterpreparation fires* offset the potential effect of enemy preparation, break up the momentum of his attack, and destroy his command control. The brigade or higher level commander orders these fires when an enemy attack is imminent.

■ *Fires in support of battle areas* are planned on likely avenues of approach, in conjunction with barrier and denial plans and beyond, on top of, and behind defensive battle positions.

■ *Final protective fires* may also be planned.

■ Field artillery final protective fires (FPF) are integrated with those of the supported force where they can best augment the weapons organic to the maneuver elements occupying battle positions. FPFs are used only in the defense, and only one final protective fire mission is normally assigned to a field artillery battery (105mm and 155mm). The width of an FPF ranges from 200 to 300 meters; its depth is not fixed. The precise location of an FPF is designated by the team commander. The FA battery will continue to fire until ordered by the team commander to end the mission or when all available rounds are expended.

■ *Fires in support of a friendly counterattack.*

Counterfire. Counterfire is the attack of the enemy's indirect fire system. It includes all activities necessary to attack mortar, cannon, rocket, and missile systems and it can be employed during any stage of offense or defense. Availability of counterfires is governed by the maneuver situation, availability of FA resources, target acquisition means, and vulnerability of friendly artillery to enemy counterfire. Counterfire activity is controlled at division.

FIRE SUPPORT COORDINATION

Fire support planning is deciding what and how fires will be used; fire support coordination is putting the plan into effect.

The battalion task force commander must interact with his FSO in the same manner and priority that he does with his S3 and subordinate commanders. The responsiveness and accuracy of his fire support are directly related to this interaction.

In selection of the optimum means for attack of a target, the battalion task force commander and his FSO must consider:

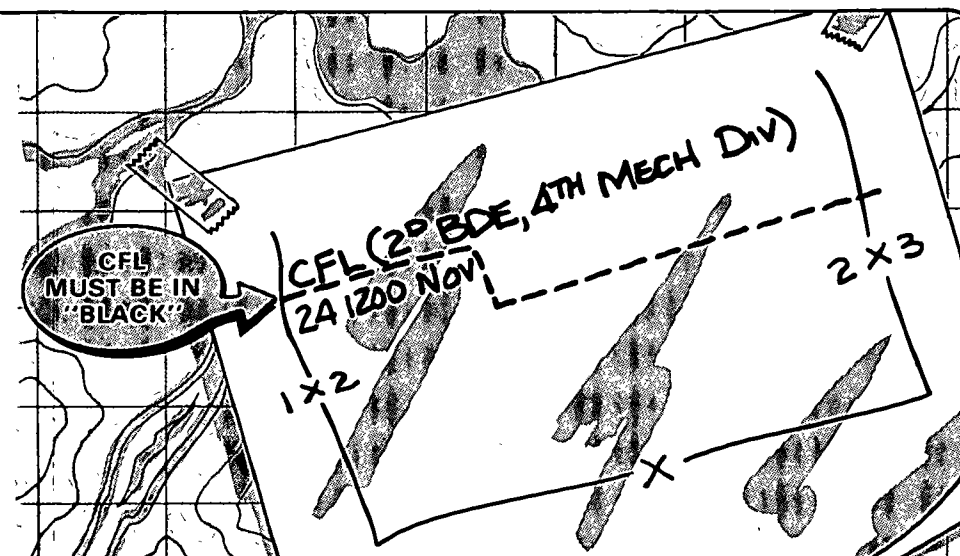
- ☐ Characteristics of the target and the desired effect.
- ☐ Characteristics, capabilities, and limitations of available weapons.
- ☐ Most economical means.
- ☐ Coordinated supply rate.
- ☐ Response time.
- ☐ Safety of friendly troops.
- ☐ Tactical benefits to be gained.

Fire support coordination involves employment of various coordinating and limiting measures. Those of immediate impact on the battalion task force commander are:

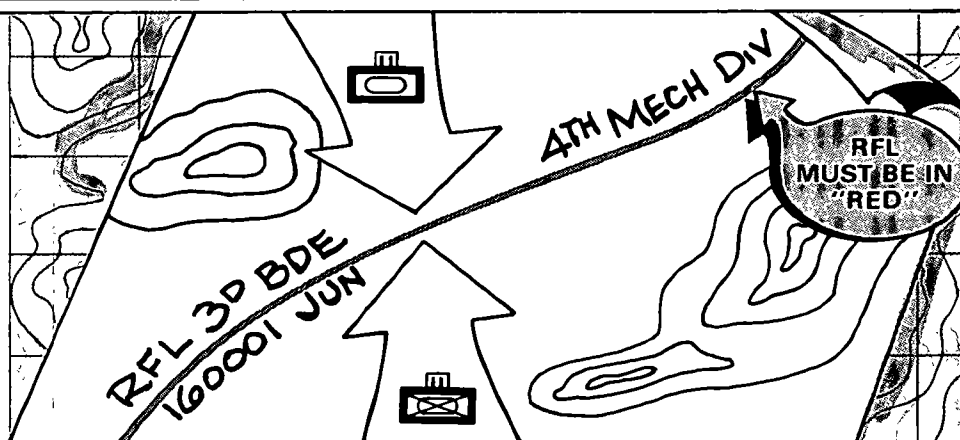
- ☐ Coordinated Fire Line.
- ☐ Restrictive Fire Line.
- ☐ Restrictive Fire Area.

Coordinated Fire Line (CFL). This is a permissive fire support measure normally established at brigade. Any target beyond the CFL is open for attack by mortars, FA, and naval gunfire without prior coordination. Fires short of the CFL must be coordinated through the FSO of the commander who established the CFL. Its location is sent out by the FSO through fire support channels.

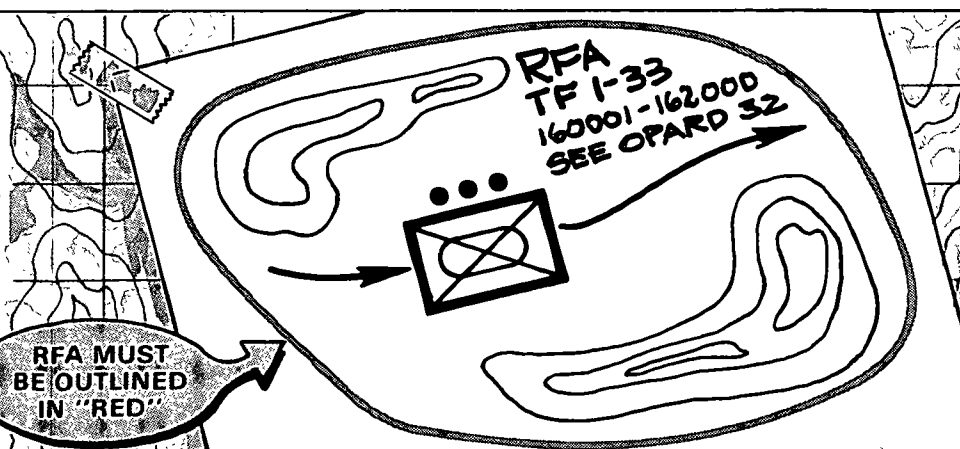
It is important to the commander as it frees the FSO of the requirement to coordinate fires on all targets in sector or zone. It allows him to concentrate on those which might endanger friendly units—speed up the attack of targets.



Restrictive Fire Line (RFL). This is a line established between two converging forces beyond which neither can fire any weapon without coordinating with the affected commander. Normally established by the common commander of both forces, it is placed along easily identifiable terrain. Functioning much the same as a boundary, it impacts on troop safety. It is sent out by the FSO.



Restrictive Fire Area (RFA). An area into which no unit may fire without coordinating with the commander who established the measure. It is an excellent measure for protecting patrols or other forces operating at some distance from the main body of the battalion. The area should include terrain features easily identifiable from the air.

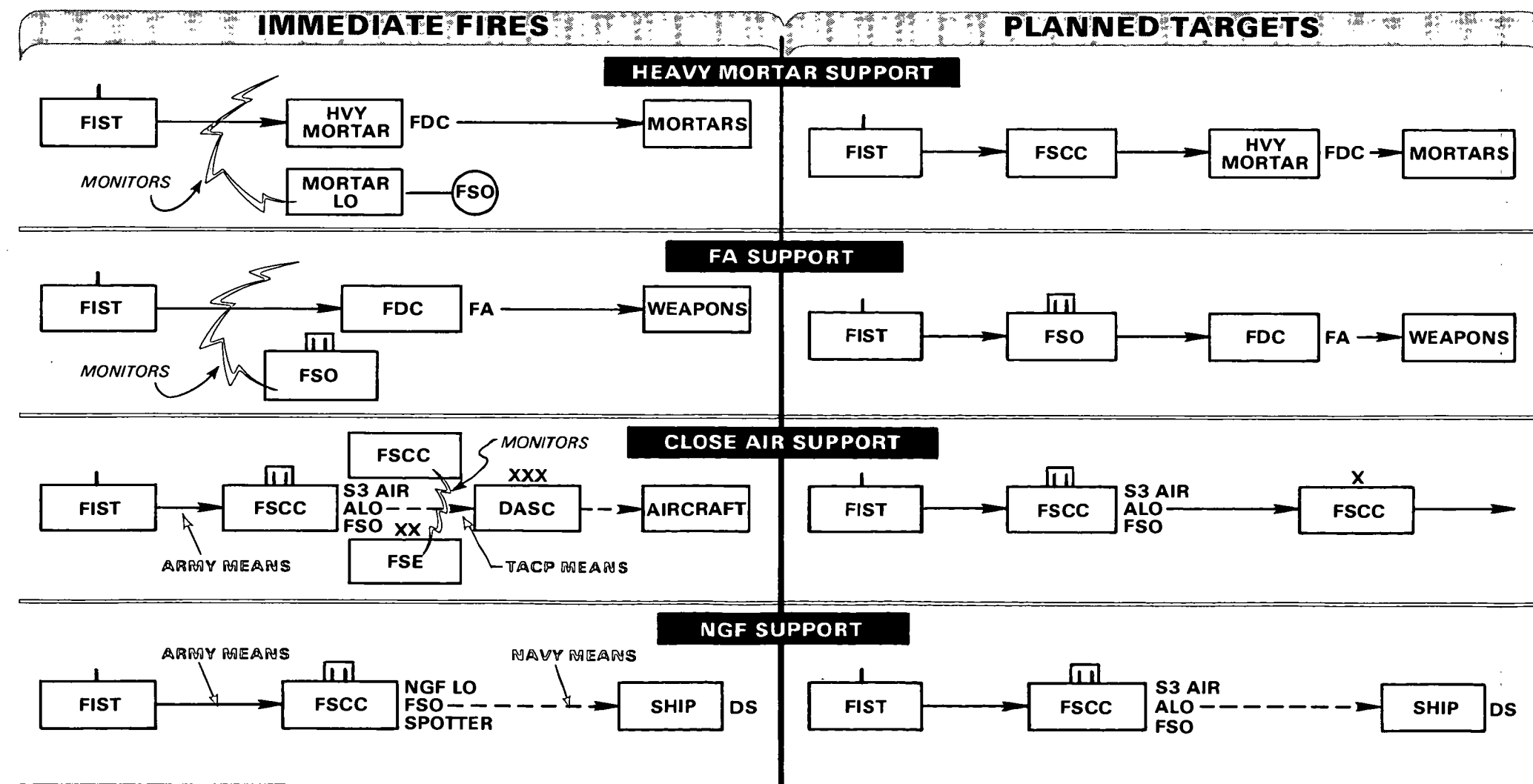


FIRE REQUEST CHANNELS

Requests for fire support result in a single target or a list of targets going to the appropriate action agencies. Requests should provide the firing unit with sufficient information to act on the request. This normally includes:

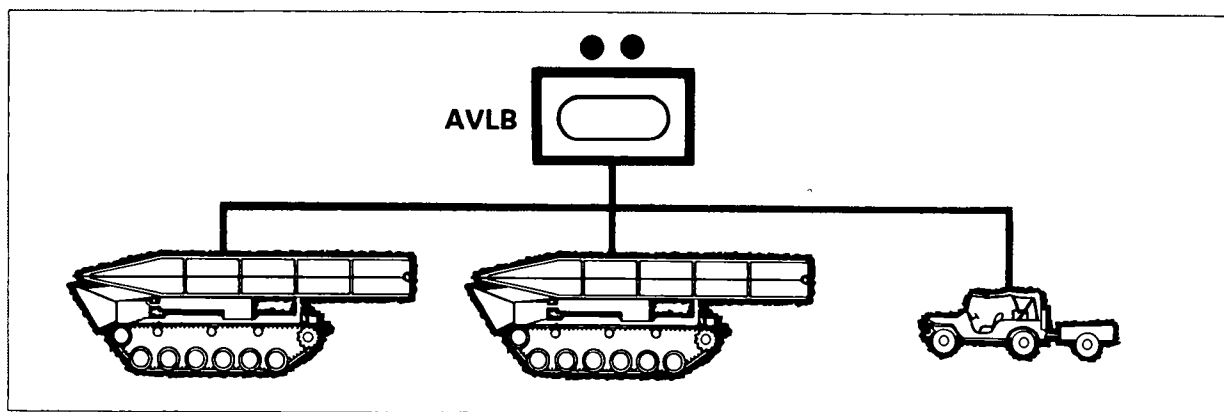
- ☐ Description (nature)
- ☐ Location/Attitude (if needed)
- ☐ Size (in meters) ☐ When fire is needed
- ☐ Type of fire needed
- ☐ Need for adjustment

Most fire support targets for the TF originate at company level—more specifically, from within the FIST. If the means to attack the target are available to the TF, assignments are made here. If not, the target (list of targets) goes to a higher level for action. Requests for *immediate* fires take the *most* responsive route while requests for *planned* targets go through the FSCC via fire support channels before being passed on to the action weapon system. Some examples of this are shown here:



OTHER SUPPORT

The Armored Vehicle Launched Bridge (AVLB) Section. The AVLB provides class 60 assault bridging capable of supporting all vehicles currently found in the battalion. The tank battalion's combat support company has two armored launches in its AVLB section. Each launcher carries one bridge. The divisional engineer battalion provides AVLBs to a task force organized around a mechanized infantry headquarters. The divisional engineer battalion has four launchers and a total of six bridges.



The AVLB is used in both the offense and defense to cross...

- Railroad cuts
- Streams and canals
- Road craters and antitank ditches
- Partially blown bridges

...and other similar obstacles up to 60 feet across. Gaps larger than 60 feet can be crossed using both AVLBs together, providing some type of intermediate support exists.

When obstacles are expected during movement to contact, one or both AVLBs normally will be employed in direct support of the leading company team(s). AVLBs may be attached when the tactical situation warrants, such as during an exploitation or pursuit. When obstacles are not expected, the AVLB will normally be retained in general

support and move with the battalion task force combat trains. When AVLBs from the division engineer battalion support the attacking force, they should be emplaced before organic bridges are committed.

During defensive operations, AVLBs will normally be retained in general support of the entire force and positioned close to the obstacles they will be used to cross. Crossing sites should be reconnoitered and prepared, but bridges should not be emplaced until needed. Premature emplacement invites detection and destruction by enemy air and artillery. When multiple obstacles exist, the AVLB should be centrally located.

The commander who emplaces the bridge is responsible for recovery unless relieved of that responsibility by a higher headquarters. In the offense, the brigade may require that a bridge be left in place. If this occurs, brigade coordinates the transfer of a new bridge or obtains a complete bridge/launcher combination for the attacking force. In the defense, enemy pressure may require destruction of the bridge to prevent capture. Authority to destroy the bridge is normally delegated to the commander who emplaces it.

Emplacement of an AVLB is reported to brigade. The location, condition of the bridge, and estimated time the last elements will cross are included in the report. Recovery of an AVLB is also reported.

**AVLBs DEPEND ON MANEUVER
FORCES FOR SECURITY**

Although the AVLB is mounted on a tank chassis, it does not possess the same degree of cross-country mobility as a tank. Because of its configuration and greater weight, it is unable to negotiate a slope of greater than 30 percent.

Launch and retrieval times are dependent on crew training, the mechanical condition of the bridge/launcher, and conditions at the site. Well-trained crews can launch a bridge in 3 minutes and retrieve it in 10. The bridge can be launched without exposing crew members.

When a gap is encountered by leading elements of a company team, or its existence has been determined from intelligence reports, a crossing site is reconnoitered to

determine gap width and bank conditions, to locate access routes, and to mark the launching site. If engineers are with the company team, they will conduct the reconnaissance.

On approval for emplacement, the bridge is moved to the site and emplaced, overwatched by the leading platoon. If possible, security is placed on the far bank. Indirect suppressive fires are used when required.

The company team then crosses the bridge and resumes the attack.

When the last vehicle of the company team has crossed, the commander will direct recovery of the bridge unless ordered to leave it in place. On recovery, the AVLB should move rapidly forward to its position with leading tactical elements.

Detailed information about the AVLB is found in TM 5-216.

Army Aviation. The battalion task force may use Army aircraft for command control, observation, reconnaissance, and to move troops and equipment about the battlefield.

A variety of Army aircraft are available to the battalion task force from the brigade aviation section and divisional and non-divisional aviation units. When required by the mission, the brigade provides or obtains the Army aviation needed to support the task force.

Engineers. Engineers have capabilities that complement the needs of the task force. In the offense they can clear areas, open roads and keep them open, and put in bridges. In the defense they can help construct field fortifications and put in various barriers to impede enemy movement. Two of their important functions in the defense are installing minefields and assisting in the fortification of TF battle positions. When required, one or more platoons from the engineer unit supporting the brigade may be attached or placed in support of the task force. The supporting engineers accomplish tasks based on priorities established by the brigade commander.

Air Defense Support. The task force, as part of the division, receives general air defense support from the HAWK battalion in DS of the division and from the division Chaparral/Vulcan battalion. It depends on its organic Redeye section for the local air defense coverage it needs. Based on division and brigade priorities, one or more sections of Vulcan (two Vulcans per section) may be placed in direct support of a task force. A detailed discussion of Redeye and Vulcan employment with the battalion TF is found in Appendix I.

Military Intelligence Support. The battalion task force commander gets much of his information about the enemy through operations conducted to see the enemy. Considerable information is available from artillery FDCs, and the task force S2 should seek this out through the fire support officer. Additional information about the enemy and operational area is also available from adjacent and supporting units. The brigade S2 can be expected to provide the task force commander with information about enemy, terrain, weather, and the situation as viewed by the brigade commander.

Specialists from the divisional military intelligence company may be attached to the battalion task force for counterintelligence operations and prisoner-of-war interrogation. A section from the divisional remote sensor platoon may also be attached to the battalion task force. These devices can provide information about enemy movement. The section chief can advise the battalion S2 on employment of REMS which can be emplaced by the section or by Army aircraft. Once emplaced, the REMS section monitors the devices and provides information to the battalion task force S2.

For aerial reconnaissance, the battalion task force S2 can request support through S2 channels from the corps military intelligence battalion, aerial reconnaissance support (MIBARS). The MIBARS has photographic, radar, and infrared capabilities.

Requests for planned aerial reconnaissance are submitted to brigade S2. Immediate requests are forwarded through Air Force channels.

Military Police Support. From time to time, the battalion task force may need military police support for prisoners of war, security, refugee control, traffic control, and maintenance of law, order, and discipline. When this is the case, the brigade can provide this support from the divisional military police company.

SUMMARY

More than numerical force, the proper combination of the various maneuvers, fire support, and other support elements is crucial to success. The task force commander orchestrates this combat support with his scheme of maneuver to gain the best each has to offer. He uses:

Mortar and artillery fire to destroy the enemy, suppress the enemy, and obscure the enemy's view.

Fire support to complement his maneuver.
--

The FSO as the advisor, planner, and coordinator of fire support.

Each FIST to give each company team direct access to fire support.
--

Other support (AVLB, aircraft, engineers, military intelligence, air defense, military police) to help the task force accomplish its mission.

CHAPTER 8

Combat Service Support

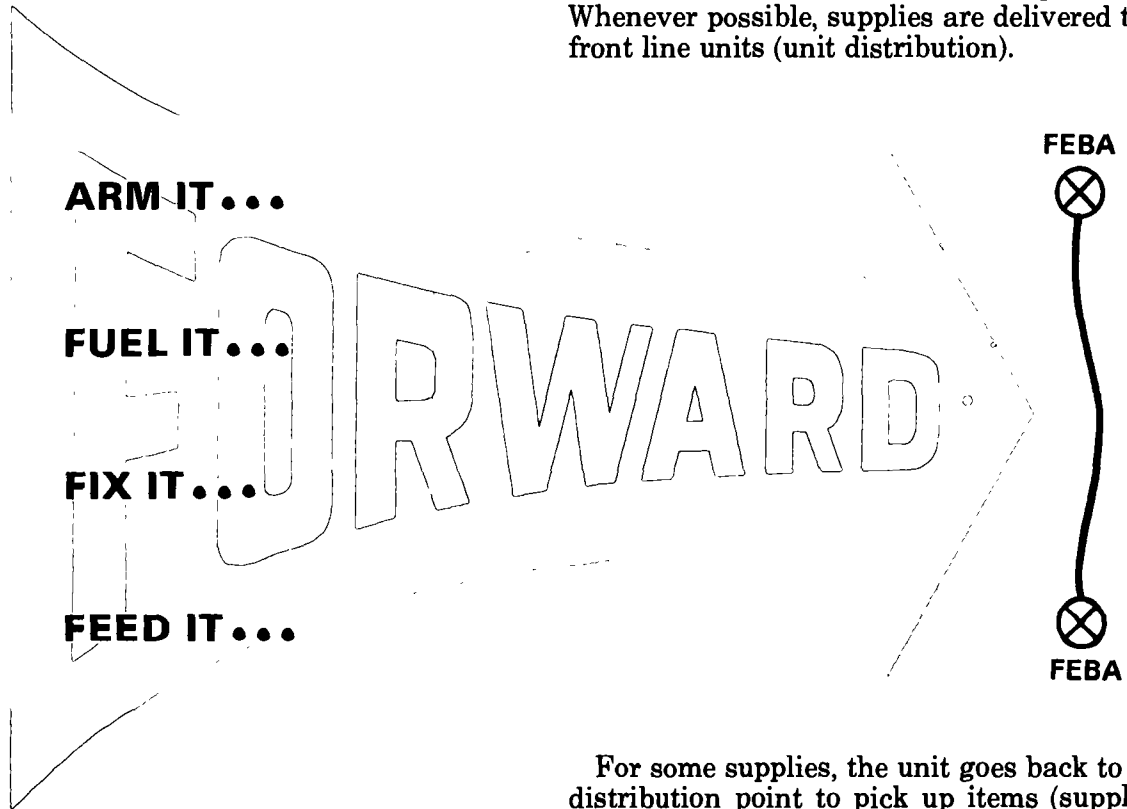
OVERVIEW

IN THE NEXT WAR, mechanized forces will move quickly over long distances, engaging in lethal battles using much ammunition. Vehicles will have to be fueled, repaired, and replaced; ammunition resupplied; and troops fed and clothed, replaced, and their wounds attended. *Mobile, continuous combat service support will be vital to the success of the maneuver and combat support elements.*

CONTENTS

	PAGE
OVERVIEW	8-1
TASK FORCE ORGANIZATION FOR COMBAT SERVICE SUPPORT	8-2
TRAIN OPERATIONS	8-4
SUPPLY OPERATIONS	8-8
MAINTENANCE RECOVERY AND REPAIR OPERATIONS	8-12
OTHER COMBAT SERVICE SUPPORT OPERATIONS	8-14
PERSONNEL SUPPORT AND ADMINISTRATION	8-14
AREA PROTECTION AND AREA DAMAGE CONTROL	8-16
SUMMARY	8-18

Combat service support is performed as far forward as the tactical situation permits. Whenever possible, supplies are delivered to front line units (unit distribution).



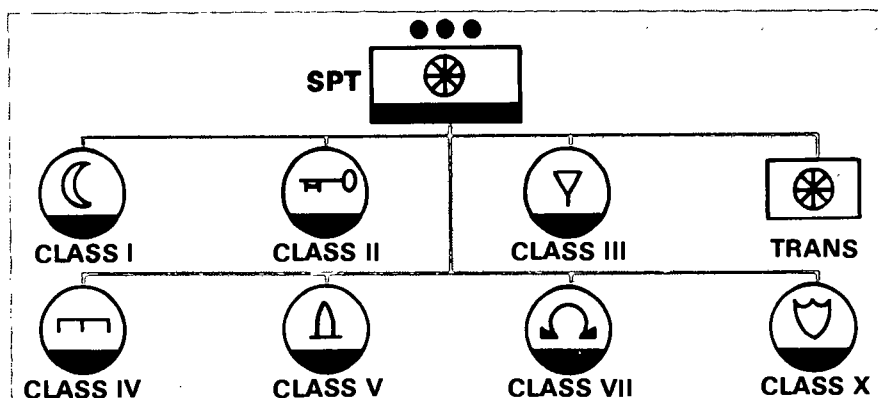
For some supplies, the unit goes back to a distribution point to pick up items (supply point distribution). Sometimes, when critical items are needed, corps units take them directly to the task force (throughput—frequently used for major assemblies, ammunition, and fuel). The task force obtains its supplies, then, through a combination of unit distribution and supply point distribution.

Maintenance is performed at the lowest echelon capable of doing the job. Frequently, maintenance contact teams from division and corps will assist front-line units to cannibalize and repair equipment to get it back into battle as soon as possible.

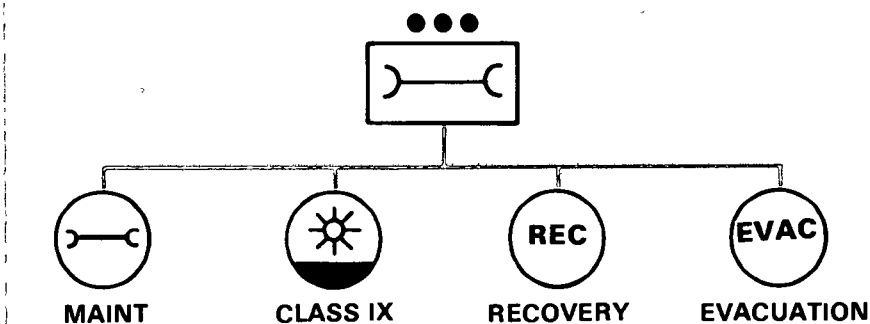
TASK FORCE ORGANIZATION FOR COMBAT SERVICE SUPPORT

The task force headquarters company has four platoons to provide combat service support:

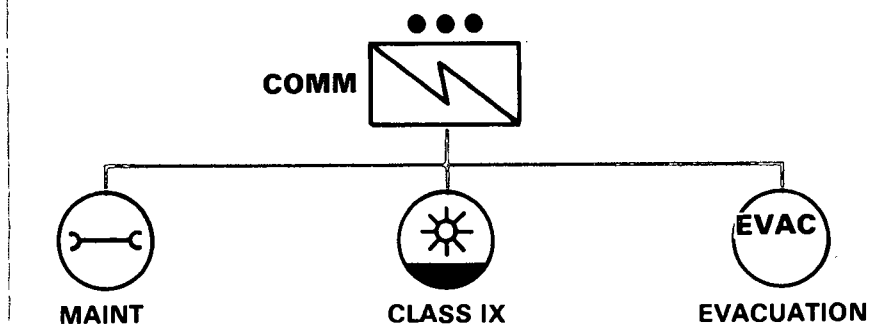
THE SUPPORT PLATOON has a transportation section to take supplies to company teams. It also has a food service section that delivers combat rations or prepared meals to all elements of the task force and a supply section that requests and distributes supplies. The assistant S4 is usually the support platoon leader and task force ammunition officer.



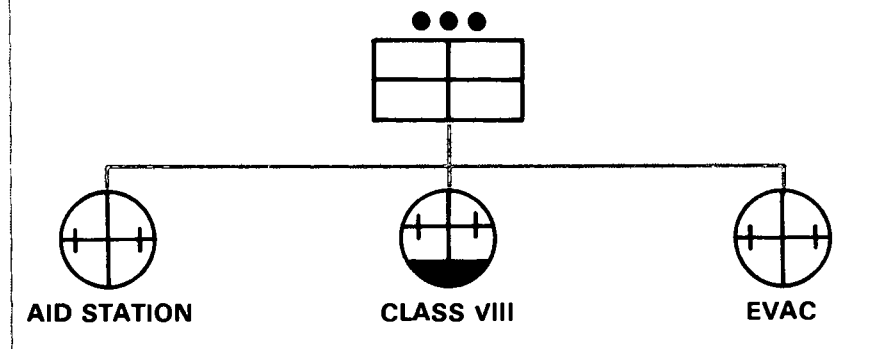
THE MAINTENANCE PLATOON performs organizational maintenance services on all equipment in the battalion task force except communications-electronics (C-E) and medical equipment. It performs organizational maintenance which cannot be done by company teams; stocks and provides repair parts; and performs battlefield recovery and evacuation. It is commanded by the battalion task force motor officer.



THE COMMUNICATION PLATOON performs organizational maintenance for communications-electronics equipment in the battalion task force headquarters and headquarters company, and some organizational maintenance on company team C-E equipment which cannot be done by company teams. It evacuates C-E equipment which it cannot repair. It is commanded by the task force communications-electronics officer.



THE MEDICAL PLATOON treats sick and wounded soldiers and evacuates them when necessary. It stocks and provides medical supplies for the battalion task force aid station and aidmen who are with company teams. It also performs organizational maintenance on all task force medical equipment.



Units which are normally a part of the battalion task force have some combat service support of their own. The battalion task force headquarters and headquarters company, combat support company, and company teams all have a headquarters section to provide limited administrative support. The supply sergeant and the company armorer provide organizational maintenance on small arms and other weapons and supervise unit supply operations.

The combat support company, a tank battalion headquarters company, and tank and mechanized infantry company teams have a maintenance section of their own. The maintenance section performs organizational maintenance on vehicles and armament and performs battlefield recovery and evacuation. Tank company maintenance sections have turret mechanics assigned for maintenance of tank turrets and fire control systems. Tanks, mechanized infantry, and combat support company maintenance sections have a radio repairman. Mechanized infantry battalion headquarters companies have no maintenance section and rely on the battalion maintenance platoon to provide this support.

The battalion task force commander often relies on his executive officer to coordinate

and supervise task force combat service support. He is assisted by:

S1, who is responsible for personnel and administrative support: maintenance of unit strength; personnel management; and maintenance of morale, discipline, law and order. The S1 may exercise staff supervision over the medical platoon leader who plans, coordinates, and supervises medical activities for the battalion task force.

S4, who is responsible for logistics support: supply, maintenance, and equipment evacuation.

S3, who, when all needs of the battalion task force cannot be met, is responsible for recommending to the commander personnel assignment priorities and supply and maintenance support priorities for subordinate units. He does this based on recommendations from the S4 and his knowledge of current and planned task force operations.

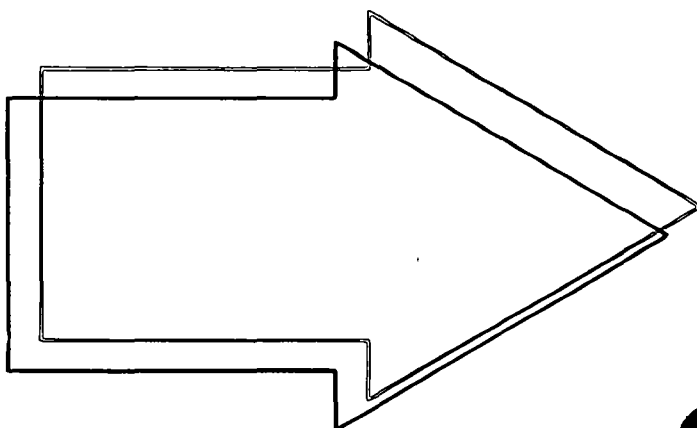
Motor officer, who supervises maintenance activities for the battalion task force except the maintenance of communications-electronics and medical equipment. The communications-electronics officer supervises maintenance of C-E items, and the medical platoon leader is responsible for maintenance of medical items.

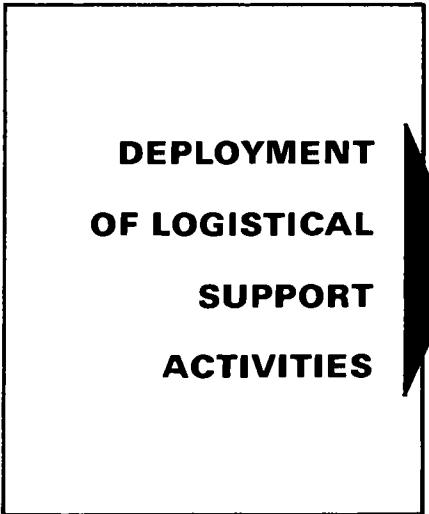
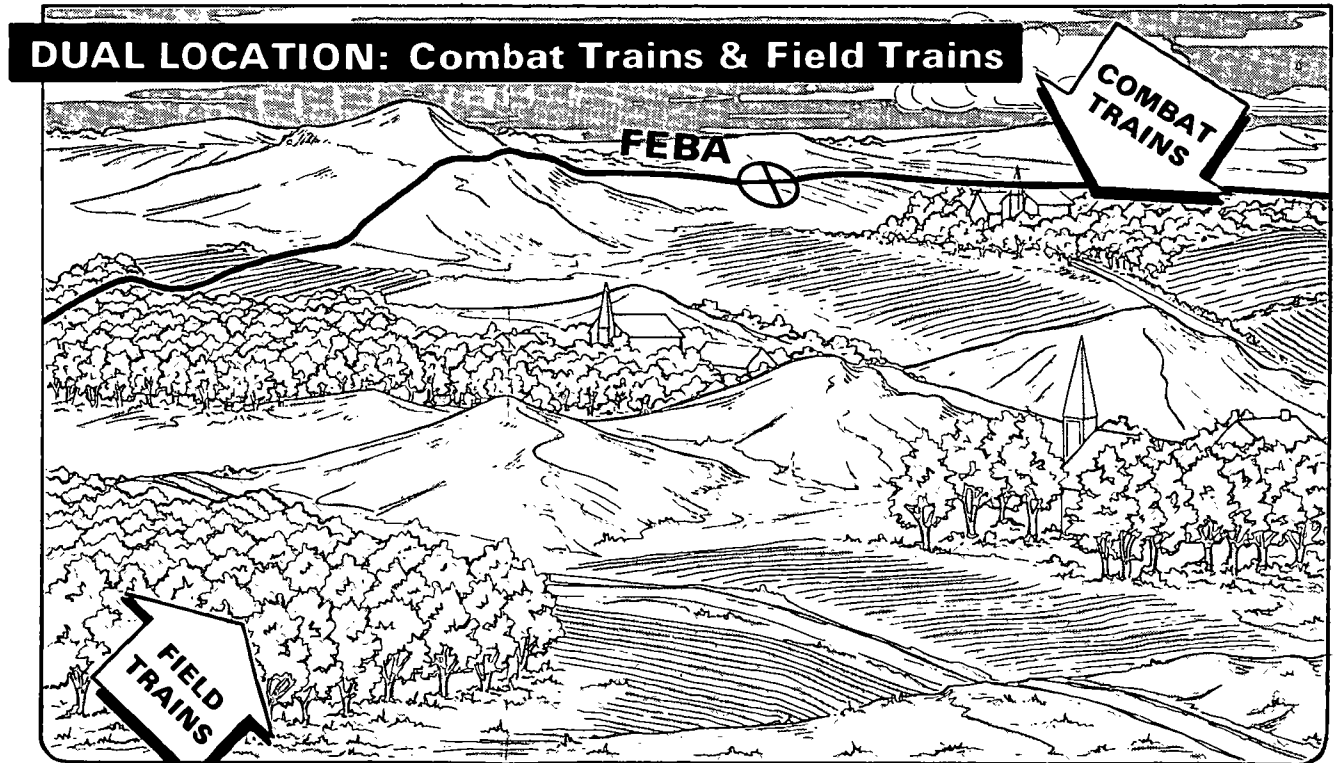
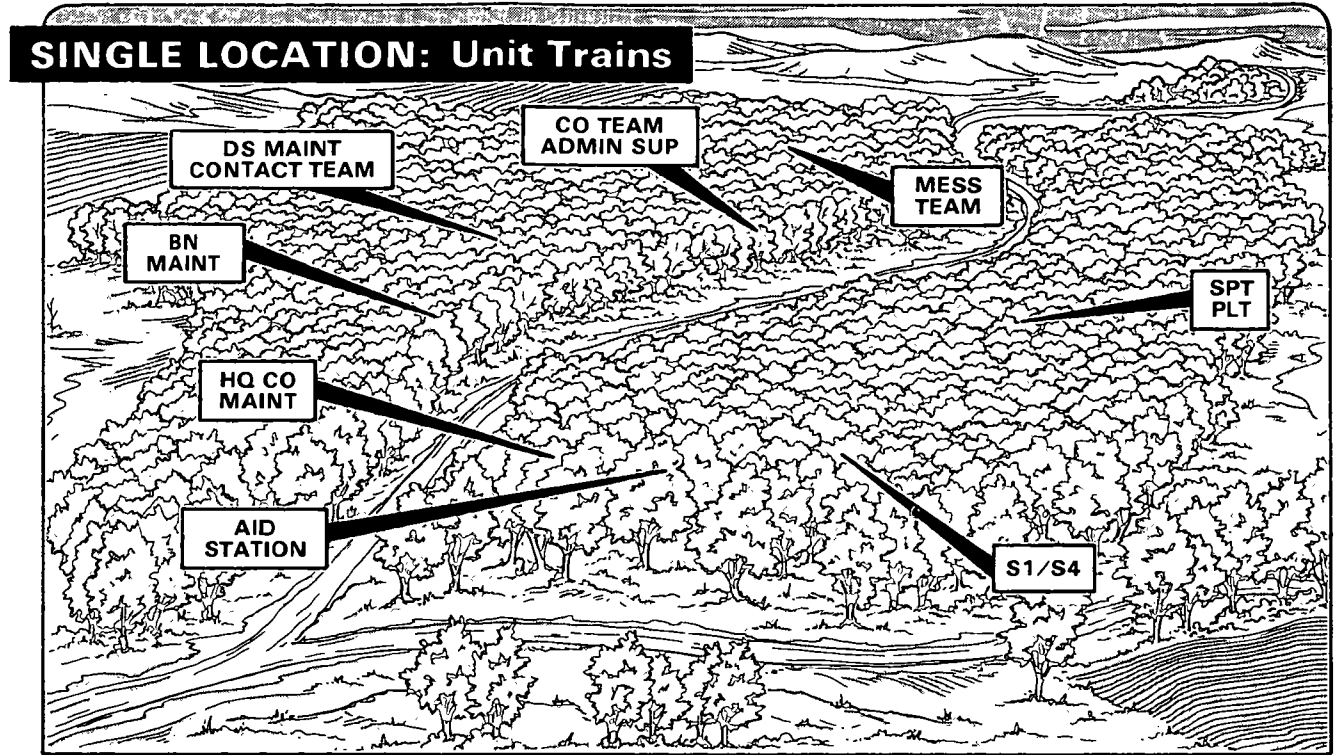
TRAINS OPERATIONS

Any grouping of personnel, vehicles, and equipment to provide combat service support to a unit is called the unit's trains. Generally, trains can be organized for combat in two ways:

Single location: All support operating under direct control of the unit are termed *unit trains*.

Dual location: Elements providing critical battlefield support forward with the task force are called *combat trains*. Elements operating farther back with or near support units of the next higher echelon are termed *field trains*.

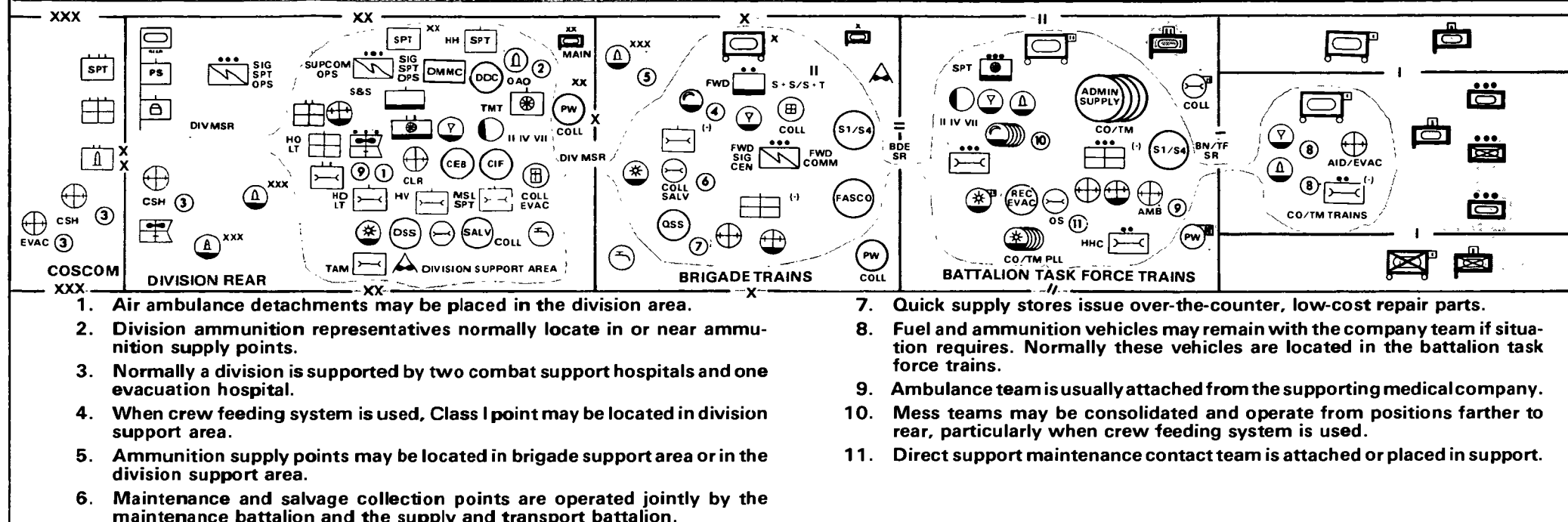




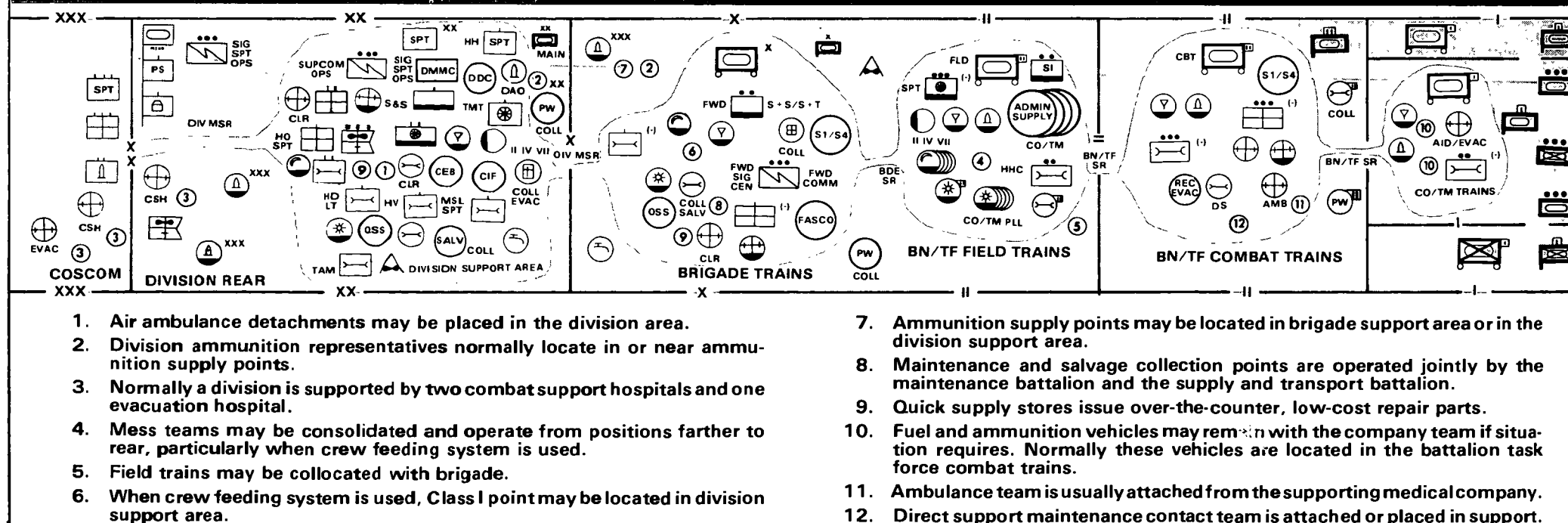
LEGEND

-  POL Supply Point
-  Class I (Rations) Supply Point
-  Ammunition (All Types) Supply Point
-  Artillery Ammunition Supply Point
-  Class VIII (Medical) Supply Point
-  Class IX (Repair Parts) Supply Point
-  Multiple Class Supply Point
-  Graves Service
-  Water Point
-  Hospital or Aid Station
-  Maintenance Point
-  Airfield
-  Repair & Maintenance Unit
-  Medical Unit
-  Transportation Unit
-  Supply Unit
-  Ordnance Unit
-  Personnel Services & Administration Unit
-  Finance Unit
-  Signal Unit
-  Aeromedical Evacuation Unit

DEPLOYMENT OF LOGISTICAL SUPPORT ACTIVITIES IN ARMORED DIVISION WITH BATTALION TASK FORCE UNIT TRAINS



DEPLOYMENT OF LOGISTICAL SUPPORT ACTIVITIES IN ARMORED DIVISION WITH BATTALION TASK FORCE COMBAT AND FIELD TRAINS



In order to understand how the battalion task force organizes its combat service support elements to support combat operations, it is first necessary to describe *brigade trains operations* and *company team trains operations*.

Brigade trains are generally located between the division support area and battalion task force trains area and beyond the range of most enemy cannon artillery. Locating about 20km behind the line of contact provides passive protection against enemy weapons up through 130mm. A brigade does not have combat service support elements of its own with which to support battalion task forces; combat service support located in the brigade trains area is from the division or corps support command. As a general rule, these elements consist of ammunition (Class V) and fuel (Class III) supply points, a forward support maintenance company with contact teams to assist battalion task forces, a medical clearing station, and a small graves registration element. Brigade combat service support is coordinated by a forward area support coordinator (FASCO) from the division support command (DISCOM) under the staff supervision of the brigade S4.

Company teams may operate using unit trains controlled by the company first sergeant. When company team trains are echeloned, battlefield recovery, maintenance, and medical elements will normally become *combat trains*; supply and mess will be *field trains* located with the battalion task force trains.

When task forces are formed, companies move to their new assignment with unit trains, to include the appropriate slice of POL, ammunition, medical, and food service elements provided out of parent battalion headquarters.

When company teams are formed, it may be necessary to readjust company team unit trains, such as ammunition loads and maintenance. Changes should be worked out between company team executive officers and the battalion task force S4 ahead of time.

Battalion task force trains are the link between company team trains and divisional

and corps support units. In most situations the battalion task force trains are controlled by the battalion task force S4. When it is necessary to echelon trains for some reason, combat trains are controlled by the task force S4, and field trains are controlled by the support platoon leader. Battlefield recovery, maintenance, medical elements, and some ammunition and fuel vehicles are located with the combat trains. The remainder of battalion task force combat service support elements become field trains located between the task force combat trains and the brigade trains, or perhaps with the brigade trains.

To provide highly responsive support, the bulk of combat service support must be positioned as far forward as the situation allows in fast moving situations. In slow moving operations, only maintenance and medical elements and some Class III and V vehicles may be positioned forward; the remainder of the task force trains is positioned further to the rear to reduce the concentration of vehicles and the vulnerability of combat service support.

As a general rule, battalion task force trains areas should be located:

- Where there is good cover and concealment from both air and ground observation.
- On ground which supports vehicle traffic.
- Near a suitable helicopter landing site.
- Outside the range of enemy mortar fire.
- Close to suitable routes to company team positions and to supply points located to the rear.
- Where movement of combat and combat support units will not be restricted by battalion task force trains.

Built-up areas are good locations for trains. They provide cover and concealment for vehicles and sheltered areas which facilitate maintenance at night. When built-up areas are used, task force trains elements should occupy buildings near the edge of the area to preclude entrapment in the center of the area.

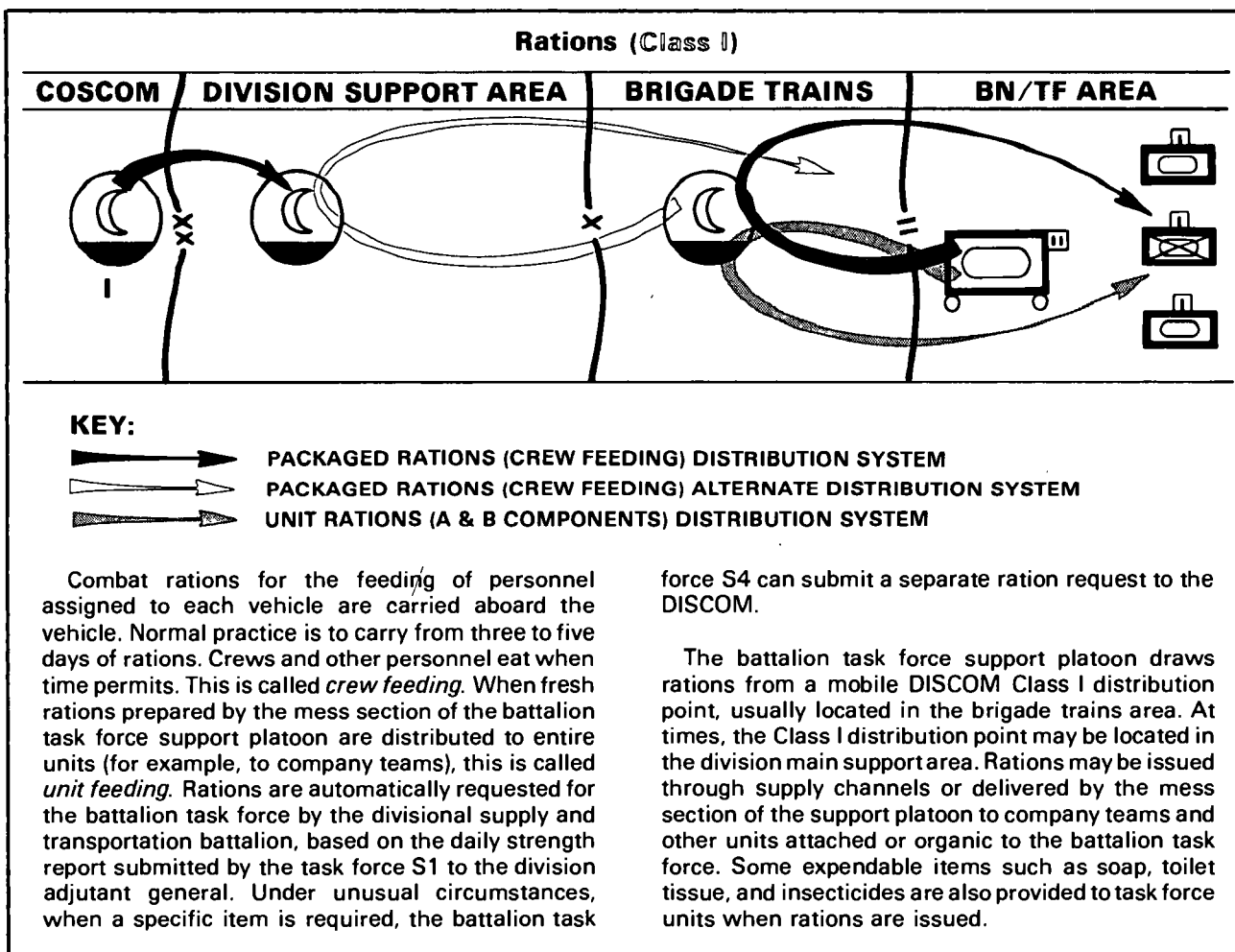
SUPPLY OPERATIONS

Supplies are those items required to equip, maintain, or operate a unit. Supply operations involve the process of determining requirements, requesting, procuring, storing, and distributing items to fulfill those requirements.

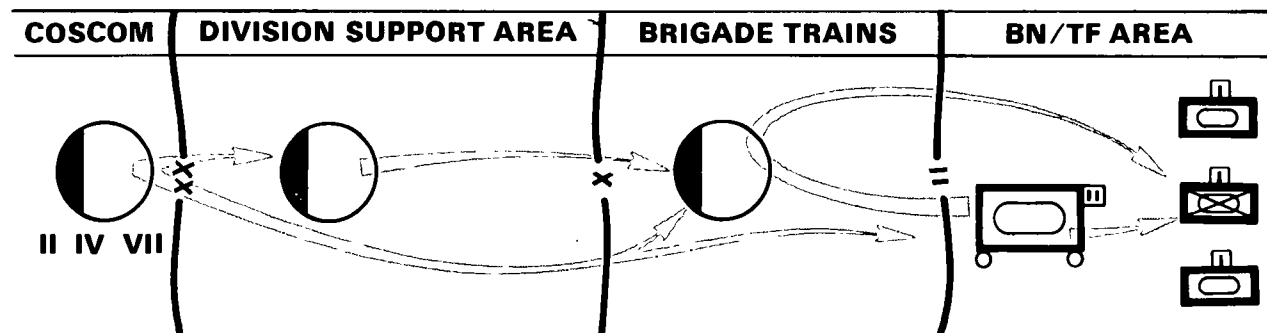
Units in the battalion task force stock some combat-essential supplies and repair parts called *prescribed loads* or, in the case of *ammunition*, *basic loads*. The minimum stockage level is normally directed by a higher command such as a division or corps and, in some cases, by Department of the Army publications. *The purpose of prescribed or basic loads is to enable a unit to sustain itself for limited periods, or until resupply operations begin.*

The battalion task force uses a combination of supply point (unit goes back to pick up items) and unit distribution (items are brought to unit). The supply section of the battalion task force support platoon is organized to process supply requests and to receive, store, and issue supplies for the task force. As a general rule, the supply section delivers supplies to company teams, using its own transportation. Distribution priorities for items in short supply are determined by the battalion task force S3 based on recommendations by the S4 and operational requirements of the task force.

To ease supply management, supplies are grouped into ten major classes:



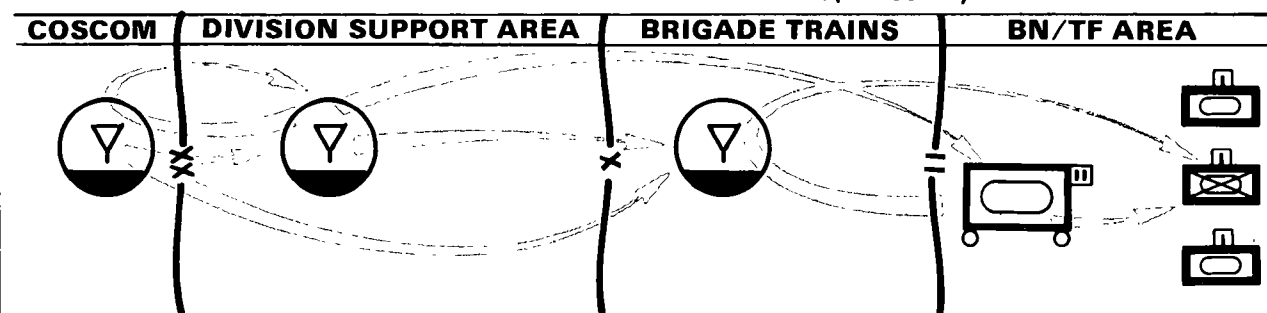
Supplies and Equipment (Except Cryptographic) Prescribed by Tables of Organization and Equipment (TOE), Tables of Allowances (TA), and Prescribed Load Lists (PLL)(Class II)



This class of supply includes clothing, individual equipment, tentage, tool sets, and administrative supplies. When a Class II item is lost, destroyed, or worn out, battalion task force units send replacement requests through the task force S4 to the DISCOM. The

supply section picks up Class II items from the forward supply section with the brigade/task force trains and delivers them to the requesting unit. In some cases, corps or divisional support units may deliver critical items directly to the requesting unit (throughput).

Petroleum, Oil, and Lubricants (POL)(Class III)



Empty fuel vehicles and containers presented at a distribution point are sufficient to obtain POL; a formal request is not necessary. Battalion task forces do, however, submit POL forecasts which form the basis for division and corps stockage levels. POL is normally obtained by the transportation section from divisional mobile Class III distribution points located in the brigade trains area. When necessary, divisional fuel tankers deliver to the battalion task force trains area, or corps helicopters may deliver POL in collapsible fabric containers to the task force. Packaged grease and lubricants are obtained through the general supply system and formal requisitions are required.

Some battalion task force tankers may move with company team trains to supply company team vehicles. When empty, tankers are exchanged for loaded vehicles or they go to a distribution point, replenish, and return. Battalion task force SOP should prescribe how this is to be done. The task force S4 insures that fuel is available at the right time and

place to resupply company teams and that bulk fuel vehicles are kept filled by whatever procedures are being used. Generally, company team refueling operations are carried out in two ways:

- 1 The fuel truck is taken to platoon positions.
- 2 Leaving security in position, platoon vehicles are moved alternately to centrally located fuel trucks.

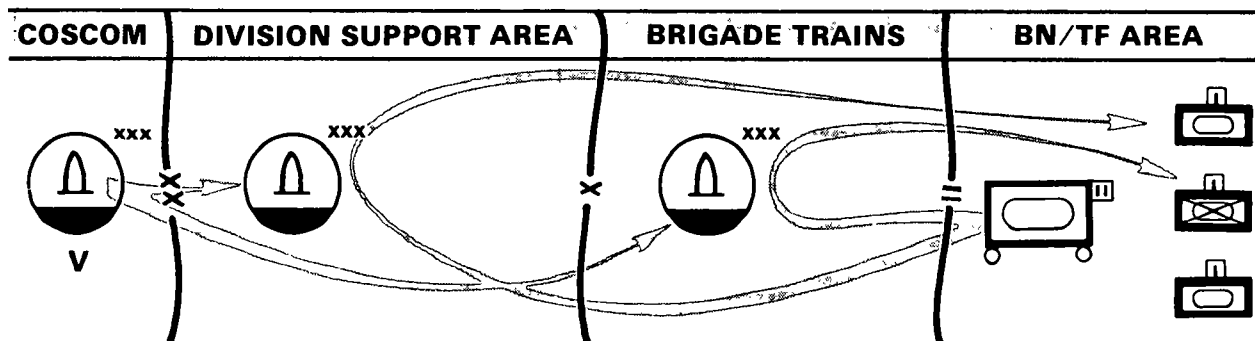
Moving fuel trucks to the position is probably the quietest refueling method. The service station method (moving combat vehicles to the tanker) is probably the fastest, but may also be the noisiest. When the service station method is used, other classes of supply can also be replenished in the same location. The battalion task force SOP should prescribe procedures for a service station operation and they should be practiced during field training to insure a smooth operation.

Items For Which Allowances Are Not Prescribed, Such as Construction, Camouflage, Barrier and Fortification Materials (Class IV)

Requisitions for Class IV items are submitted through command channels. Class IV items are distributed the same as Class II items except that

fortification and barrier materials may be throughput by corps support units.

Ammunition (Class V)



Supply is normally based on an available supply rate (ASR) announced by corps or division. At battalion level, it is made available according to mission requirements.

The battalion task force resupplies ammunition as often as necessary from Corps Support Command (COSCOM) ammunition supply points (ASP) located in the division main support or brigade trains area. When resupply is required, the support platoon leader prepares a requisition, called a *transportation order*, based on unit reports of expenditure. The transportation order is validated by a representative of the division ammunition officer (DAO) who is located along the main supply route between the supply vehicles at the battalion task force trains area and ASPs. Ammunition is picked up by task force supply vehicles at the nearest ASP and returned to the task force trains area where it is held until needed by organic or attached units. *When necessary, DISCOM or COSCOM units deliver ammunition directly to battalion task units by vehicle or by helicopter.*

Some task force ammunition vehicles may travel with company team trains. When a unit calls for ammunition, it is delivered to the unit by battalion task force supply vehicles. Ammunition is sent forward to release points where unit personnel take charge and move the supply vehicles to platoon areas. Resupply must be accomplished quickly and vehicles released to return to the supply point for reloading. As in refueling, there are two ways to do this:

- 1 Ammunition is trucked to platoon positions and loaded directly on combat vehicles.
- 2 Ammunition is placed on the ground near vehicles to be loaded aboard by crews.

Sometimes it may be advisable to prestock ammunition. This is especially true in the defense. Prestock sites must be carefully located based on the scheme for conducting the defense.

Personal Demand Items (Class VI)

Class VI includes personal items sold through COSCOM post exchanges (PX). Requests for support

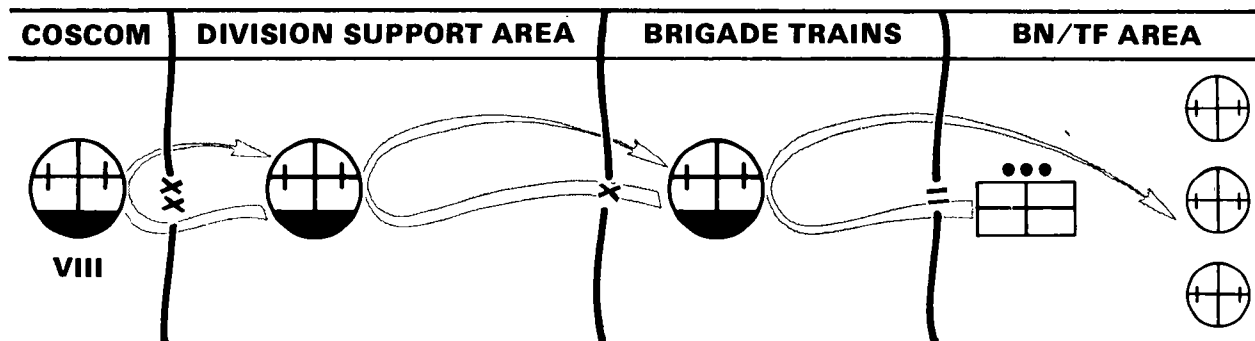
are submitted by the S1 through administrative channels when no PX is available.

Major Items (Class VII)

Tanks, APCs, recovery vehicles, and heavy antitank weapons (HAW) are issued based on daily battle loss reports or a formal requisition. Large items are delivered by COSCOM directly to the battalion task

force or its units. Smaller items are normally picked up by the battalion task force support platoon at the divisional distribution point in the division main support area.

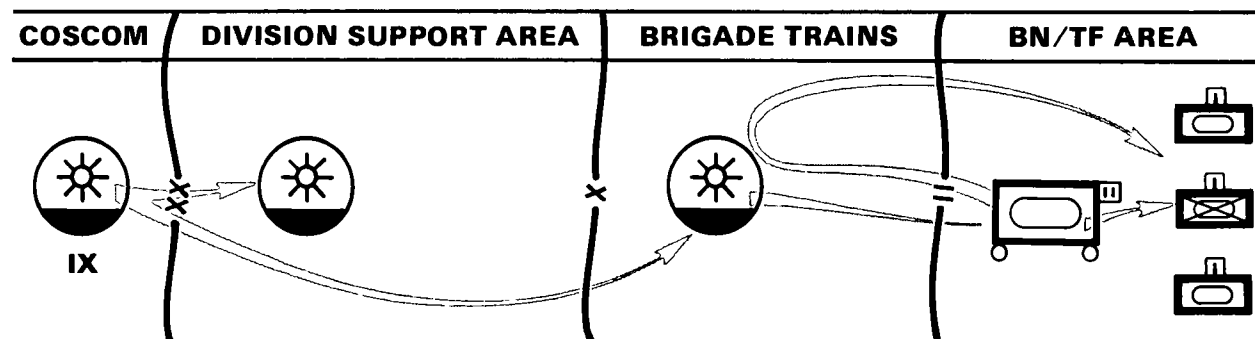
Medical Supplies (Class VIII)



These items are obtained for the battalion task force by the medical platoon from the divisional

clearing station located in the brigade trains area.

Repair Parts (Class IX)



The battalion task force stocks repair parts based on a prescribed load list. High demand repair parts are usually stocked by company maintenance sections. Other repair parts (except medical and communication) are stocked by the task force maintenance platoon. Communications-electronics repair parts are normally stocked by the battalion task force communications platoon, although the battalion task force commander may choose to let the maintenance platoon manage them. The medical platoon stocks medical repair parts. The task force maintenance platoon normally manages repair parts

for its organic units. Each company PLL is managed separately and may be sent with a company when detached from the task force.

Repair parts are issued in response to a specific request or by direct exchange. The battalion task force obtains repair parts from the divisional forward support maintenance company located in the brigade trains area. They are delivered to company maintenance sections in response to requests submitted over the logistics radio net or in person by company maintenance personnel.

Nonstandard Items (Class X)

These items are intended for support of nonmilitary programs such as agriculture and economic development. Those not included in Classes I-IX are

requested, obtained, and delivered by the S4 the same as Class IV items.

Other Supplies

● *Water* is obtained from divisional engineer water points using battalion task force transportation.

● *Maps* are obtained by the battalion task force S4 from the division supply officer based on

requirements established by the task force S2. The S2 distributes maps to battalion task force units as required.

MAINTENANCE, RECOVERY, AND REPAIR OPERATIONS

Good maintenance keeps materiel in serviceable condition. It includes inspecting, testing, servicing, repairing, requisitioning, rebuilding, recovering, and evacuating. Repair and recovery are completed as far forward as possible, at the lowest capable echelon. When equipment cannot be repaired on site, it is moved only as far as necessary for repair. When all the maintenance requirements of the task force cannot be met, the task force S3 determines maintenance support priorities for subordinate units based on recommendations of the S4 and operational requirements of the task force.

Categories of Maintenance.

Organizational maintenance is the care and repair done by the unit on its own equipment. It includes services and repairs within the capabilities of authorized personnel, skills, tools, test equipment, and time available. Direct support maintenance, performed by specific maintenance activities to assist using organizations, is limited to repair of end items or unserviceable assemblies. Support maintenance from the divisional forward support maintenance company is located in the brigade trains area.

Company level maintenance operations are limited to organizational maintenance services, minor repairs, recovery, and evacuation. Maintenance tasks that cannot be done by company personnel in a reasonable length of time must be done by task force maintenance or communications

platoon personnel. In a mechanized infantry battalion, the headquarters company has no maintenance section, so the battalion task force maintenance or communication platoon performs all organizational maintenance for the company.

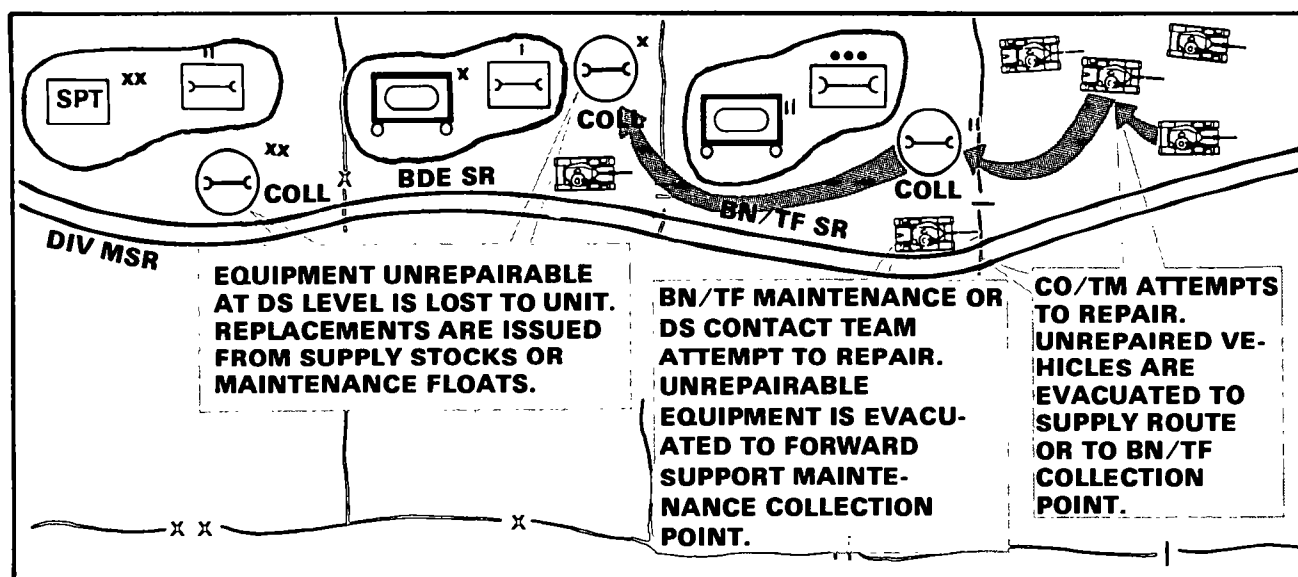
The battalion task force may be authorized to cannibalize or remove parts from damaged or uneconomically repairable equipment or vehicles in order to return other equipment or vehicles to combat. When this is the case, cannibalization policies are established by the division commander. Cannibalization is generally limited to that performed by DS ordnance personnel.

Recovery. Unit maintenance sections recover disabled vehicles, towing them to where they can be repaired. Unit recovery sections may be augmented by task force maintenance platoon recovery vehicles if necessary.

If unit personnel CANNOT repair the vehicle:

- During fast-moving operations, it is towed to the battalion task force supply route (SR) and secured there to await arrival of task force maintenance personnel.

- During slower-moving operations, it is towed to a collection point established by the task force motor officer.



If the battalion task force maintenance platoon CANNOT repair the vehicle:

- It is repaired on site by an ordnance DS contact team.
- Moved to a collection point operated by the DS maintenance company.

Some or all crewmen remain with the vehicle to return it or a replacement to their unit. Communications-electronics equipment installed in a disabled vehicle is usually evacuated with the vehicle. Personal equipment belonging to crewmen not accompanying the vehicle; ammunition; and sometimes special equipment should be transferred to other vehicles before evacuation.

Maintenance procedures for tank turrets are the same as for vehicles. Work begins at team level backed up by the task force maintenance platoon. DS repairs are performed on site by the contact team. When necessary, the vehicle or component is evacuated, but only as far as required to have the work done.

Power-generating equipment services and repairs, except operator maintenance, are performed by the task force maintenance platoon; or, if necessary, the equipment is evacuated to the forward support maintenance company.

Damaged communications-electronics equipment items are evacuated directly to the task force communications platoon or to a maintenance collection point. Classified cryptographic equipment must be safeguarded during evacuation and processed through cryptographic channels.

The unit armorer performs organizational maintenance on weapons. Weapons which require repair beyond his capability are evacuated through task force to the DS maintenance unit.

EQUIPMENT EVACUATED TO A GENERAL SUPPORT MAINTENANCE UNIT CANNOT BE REPLACED OTHER THAN BY REQUISITION

Equipment that can be repaired by DS ordnance personnel is either returned to the user or replaced from DS maintenance floats. Equipment that cannot be repaired by DS maintenance personnel is evacuated to a general support maintenance unit. When this happens, the equipment is lost to the battalion task force. A replacement must be requisitioned by the S4 and is provided by corps or theater army support units. Salvage equipment is evacuated to a salvage collection point collocated with the forward support maintenance company collection point.

OTHER COMBAT SERVICE SUPPORT OPERATIONS

Transportation requirements that cannot be satisfied by unit transportation are provided by the transportation section in the battalion task force support platoon. If the task force requires additional transportation support, the requirement is passed to the divisional supply and transportation battalion through the brigade S4.

A bath and clothing exchange service can be requested from the divisional supply and transportation battalion in the brigade trains area when the tactical situation permits.

Laundry service, when available, is provided by nondivisional support units and coordinated by the task force supply service.

PERSONNEL SUPPORT AND ADMINISTRATION

Battalion task force personnel support and administration are supervised by the task force S1.

Personnel Management. Classification, assignment, reclassification, reassignment, appointment, promotion, reduction, officer efficiency reports, enlisted evaluation reports, enlisted conduct and efficiency ratings, transfers, separations, and reenlistments are performed primarily by the battalion task force S1 section. Task force teams have a very limited administrative capability.

Maintenance of Unit Strength. Company teams submit daily strength reports to the battalion S1 who forwards a battalion task force consolidated report through brigade to the division adjutant general. Casualty feeder reports, to include witness statements, are also processed by the task force S1 and forwarded directly to the division adjutant general in accordance with established procedures. These reports, together with authorized position vacancies, are the basis for requesting individual replacements. Normally the S1, in coordination with the battalion task force

executive officer, determines assignments for individual replacements. For critical skills, the task force S3 or commander may establish assignment priorities.

When operating in an active nuclear environment, the battalion task force S3 is responsible for determining a unit's potential to operate in an area contaminated by radiation. He does this by comparing radiation damage reports submitted by battalion task force units with the operational exposure guidance (OEG) established by the task force commander. The amount of radiation exposure previously suffered by individual replacements may also influence unit assignments.

Personnel Services. Leaves and passes, command information, postal service, religious activities, exchanges, financial service, legal assistance, welfare, special services, and rest and relaxation help unit commanders maintain morale. The battalion task force commander is responsible for insuring these services are fairly and impartially provided to soldiers of his task force.

Collection, Identification, Safeguarding of Personal Effects; and Evacuation of Dead from the Battle Area. The unit has the responsibility, but is monitored by the battalion task force S1. Remains are placed in containers by either medical evacuation teams or aid station personnel. Dead are evacuated with their personal effects to a graves registration collection point using available transportation.

Personal effects found on the body are never removed. Personal effects in unit storage are quickly screened, inventoried, and forwarded to appropriate graves registration elements. Military equipment found with the remains or in unit storage is turned in to the battalion task force S4. If battlefield conditions do not permit immediate evacuation, remains are left at a location designated by the task force S1 for subsequent evacuation. Isolated and mass burials are performed only when authorized by appropriate authority. In either case,

complete information, including overlays, must be forwarded through channels to the appropriate agency.

Medical Support. Medical support for battalion task force units is provided by the task force medical platoon. It is organized with a platoon headquarters, an aid station section, aidman section, and evacuation section.

Task force medical support is planned by the medical platoon leader. It is important that he understand the scheme of maneuver and planned disposition of battalion task force units in order to adequately support the operation.

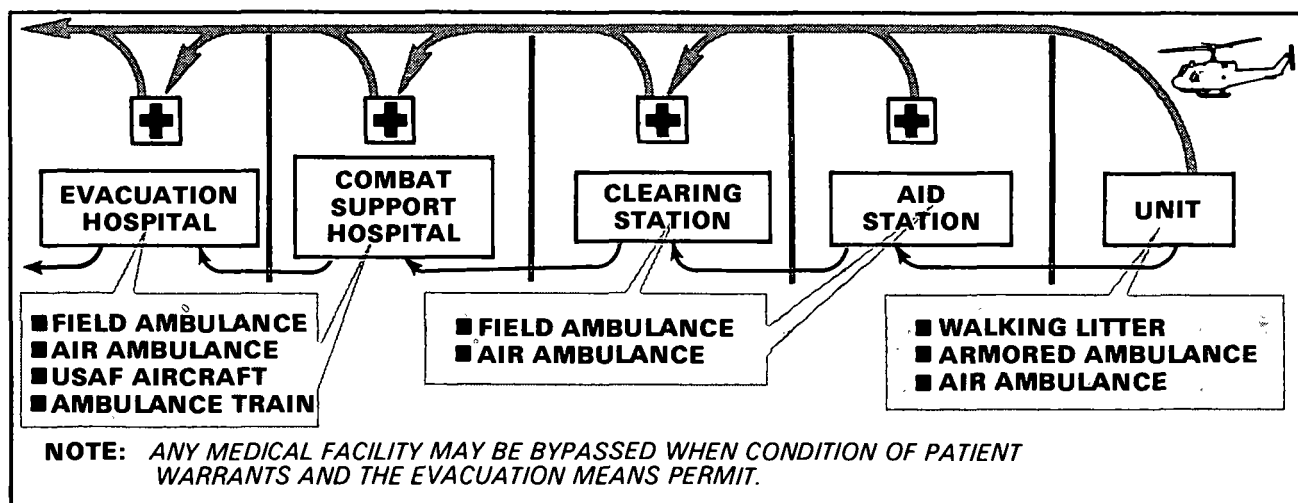
Aidmen are attached to company teams from the aidman section. Mechanized infantry battalions have 15 aidmen in the aidman section; tank battalions have only three. Infantry units attach one aidman per platoon plus one additional aidman per company; tank units receive one aidman per company. Medical aidmen should live and train with the unit to which they are attached and act as unit medical advisors. In addition to the aidmen, each company team receives an evacuation team of a medical aidman and a driver with armored ambulance.

Aidmen give emergency medical treatment within their capabilities and insure that casualties who must be evacuated are properly prepared and promptly moved. While the company team can establish an aid post, it is normally preferable to *move the*

wounded out of the company team area as quickly as possible. Team aidmen therefore primarily perform triage—sorting of casualties to decide who needs further treatment and who can be returned to duty.

Casualties requiring further treatment may be evacuated to the battalion task force medical aid station by an ambulance from the medical platoon evacuation section. Depending on the seriousness of the wound, they may be moved directly to a division clearing station located in the brigade trains area or to a corps combat support hospital by divisional or corps ambulance. Evacuation directly from the battlefield to division or corps medical support facilities will most often be by aerial ambulance.

The battalion aid station is located as far forward as possible, normally with the battalion task force combat trains. It should be located in an area providing cover and concealment from ground and air attack, near routes which permit timely evacuation of casualties, and near covered helicopter landing areas for air evacuation. The battalion aid station is supervised by a physician's assistant who is a highly trained warrant officer. Here, also, triage is performed and casualties are given medical treatment within the capabilities of aid station personnel. Casualties requiring further treatment are evacuated by division or corps medical support units to medical facilities located further to the rear.



Prisoners of War. Processing and evacuation of prisoners of war are the responsibilities of the battalion task force S1; processing and evacuation of captured enemy documents are the responsibilities of the S2; and processing and evacuation of captured equipment are the responsibilities of the S4 in coordination with the S2. How this is done is described in appendix K.

AREA PROTECTION AND AREA DAMAGE CONTROL

Battalion task force elements located behind company teams must be prepared to defend themselves against guerrillas, partisans operating in the area, and also main forces who have broken through or bypassed the defense. The battalion task force S4 is responsible for planning security of the battalion task force trains area.

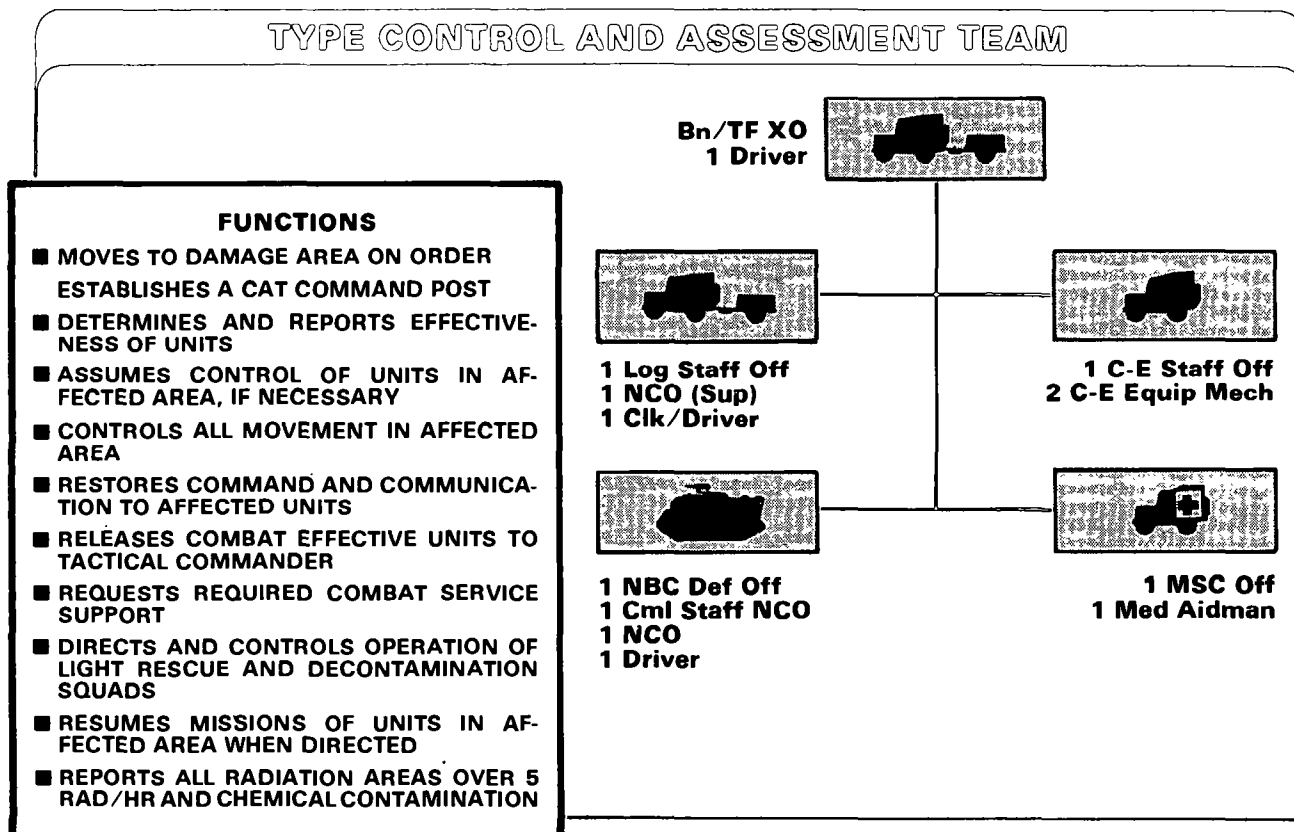
As a general rule, a perimeter defense is planned. The battalion task force trains area is divided into sectors, and elements in the

task force trains, such as the support platoon and maintenance platoon, are assigned a specific sector to defend. Mutually supporting positions which dominate likely avenues of approach are selected for vehicles armed with heavy machineguns. Provisional rifle squads are organized, and observers are positioned outside the perimeter to provide early warning. Internal communications and an alarm or warning system must be arranged.

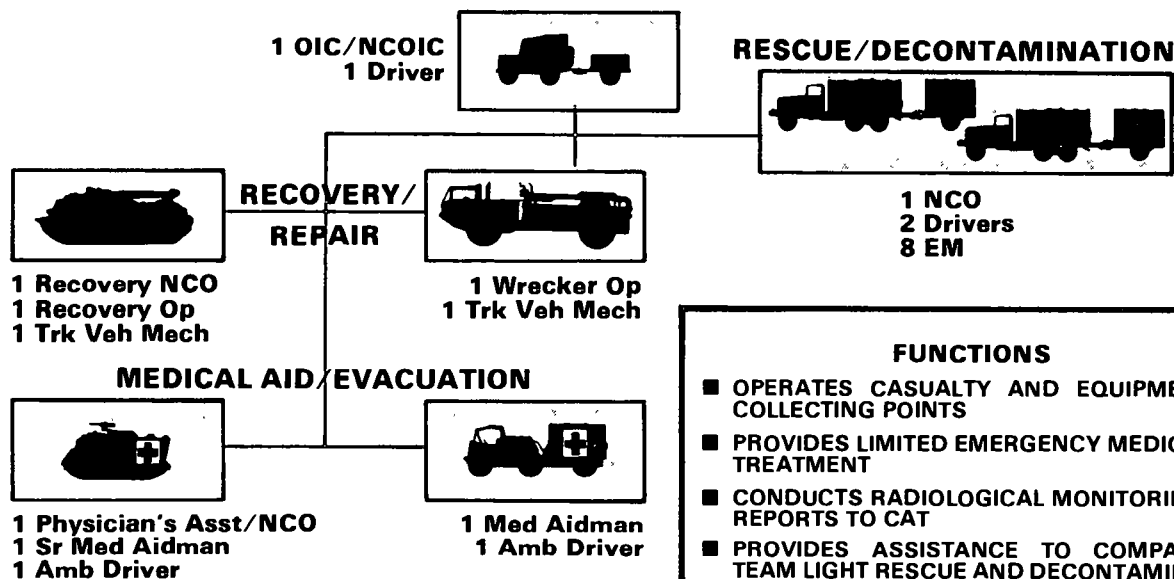
Plans must also be made for area damage control in the event of a natural disaster or nuclear attack. Area damage control should be included in battalion task force standing operating procedures. As a minimum, SOP should provide for:

- A control and assessment team (CAT) and light rescue and decontamination squad from battalion task force headquarters company.
- A light rescue and decontamination squad in each company-size unit.

TYPE CONTROL AND ASSESSMENT TEAM



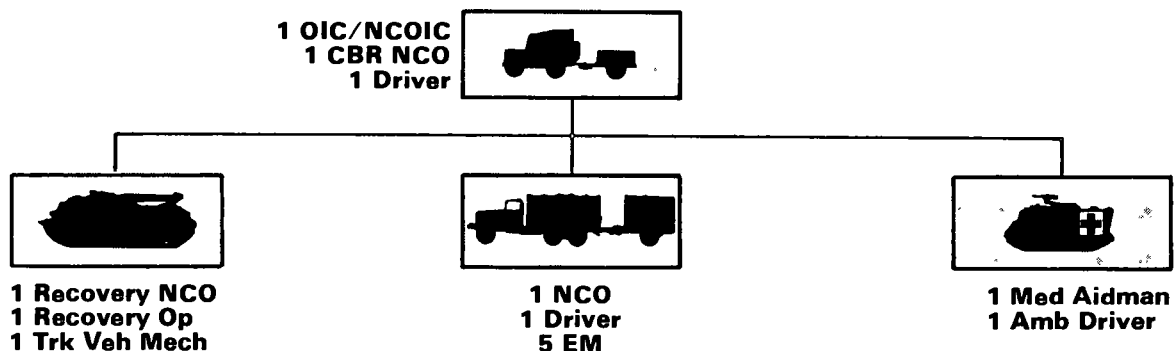
TYPE BN/TF LIGHT RESCUE AND DECONTAMINATION SQUAD



FUNCTIONS

- OPERATES CASUALTY AND EQUIPMENT COLLECTING POINTS
- PROVIDES LIMITED EMERGENCY MEDICAL TREATMENT
- CONDUCTS RADIOLOGICAL MONITORING, REPORTS TO CAT
- PROVIDES ASSISTANCE TO COMPANY TEAM LIGHT RESCUE AND DECONTAMINATION SQUADS

TYPE CO/TM LIGHT RESCUE AND DECONTAMINATION SQUAD



FUNCTIONS

- ADMINISTERS FIRST AID
- RESCUES AND REMOVES CASUALTIES
- EVACUATES VEHICLES AND MAJOR ITEMS OF EQUIPMENT
- CONDUCTS RADIOLOGICAL MONITORING, REPORTS TO CAT
- PERFORMS LIMITED DECONTAMINATION

When area damage control operations are initiated, the CAT first assembles all required elements at some central point. In case of a nuclear strike, the point must be sufficient distance from ground zero (GZ) to minimize radiation effects on the CAT. The CAT depends on reports from observing units and initial assessment reports from brigade aerial survey teams. The CAT commander analyzes the situation, opens a CAT command post, and designates sectors of search; salvage and maintenance points; casualty collection points; and rally points for survivors. In case of a nuclear strike, the NBC defense officer determines or estimates GZ, type of burst, destructive power (yield) of the weapon, and the included radiation or fallout pattern. Sectors of search and collection points may be adjusted once actual conditions are determined. The CAT then directs the operations of task force and team rescue squads. Requests for additional assistance from brigade or division are processed through operations channels.

SUMMARY

The battalion task force commander is primarily concerned with the winning of the battle and concentrates his efforts on directing the fight. This direction includes the provision of mobile, continuous support. The task force must be armed, fueled, fixed, and fed as far forward as possible.

The task force headquarters company has a support platoon, maintenance platoon, communication platoon, and medical platoon.

Support units may be grouped at a single location (unit trains) or at dual locations (combat trains and field trains).
--

The support system is designed to get all ten classes of supplies to the front as rapidly as possible.
--

Maintenance is performed at the lowest level capable of repair. Technical assistance comes to the front when necessary.

Each battalion task force staff officer has definite responsibilities in the support system to aid the commander.

APPENDIX A
**Command, Control, and Communications-
Electronics (C-E) Command Group**

OVERVIEW

BECAUSE OF THE RAPID TEMPO of operations on the modern battlefield, the battalion task force commander frequently operates with a mobile command group. In addition to the commander, the command group consists of his fire support officer, his task force S3, and the USAF liaison officer.

The command group moves to where the task force commander can best control operations. In an attack, this is most often near a lead team. In defense, the command group is usually where the enemy's main effort is being made. The remainder of his staff operates from a task force tactical operations center (TOC) and with the task force trains.

CONTENTS

	PAGE
OVERVIEW	A-1
TACTICAL OPERATIONS CENTER	A-2
COMMUNICATIONS-ELECTRONICS	A-5
FM RADIO NETS	A-6
WIRE NETS	A-8
MESSENGERS	A-8
SOUND AND VISUAL (SV) COMMUNICATIONS	A-8
COMMUNICATIONS OPERATIONS	A-9
COMMUNICATIONS SECURITY	A-10

TACTICAL OPERATIONS CENTER

In a task force organized around a mechanized infantry battalion headquarters, the command group rides in armored personnel carriers (APC).

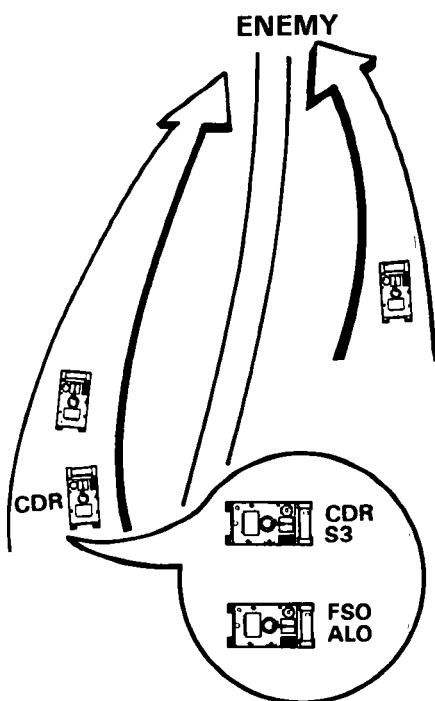
In a task force organized around a tank battalion headquarters, the command group rides in tanks from the battalion headquarters company tank section or in armored personnel carriers. A tank battalion headquarters section has an APC designated for the USAF tactical air control party. Other APCs which can be used by the command group are available in the combat support company. When the command group operates from APCs, the headquarters company tank section can be used to overwatch. The command group would then be similar to other small units moving about the battlefield.

The battalion task force TOC, located to the rear of forward deployed company teams, serves as primary communications and planning center. It is supervised by the battalion task force S3 or, in his absence, the S2. Generally, it is manned by operations and intelligence personnel not forward with the command group, and liaison personnel from units attached under the operational control of, or supporting the battalion task force.

From time to time, the battalion task force S1 and S4 may operate with the TOC, but most often they operate with the battalion task force trains. Trains operations are described in chapter 8, *Combat Service Support*.

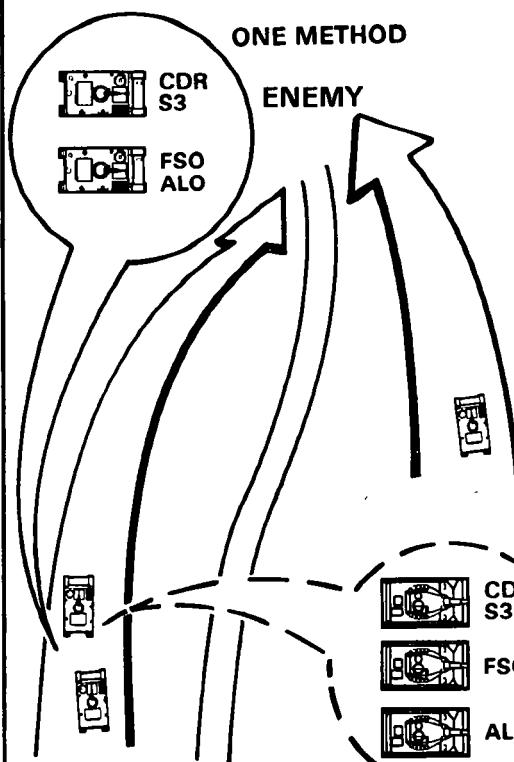
LOCATION OF COMMAND GROUPS

MECH INF HQ



TANK BN HQ

ONE METHOD



A SECOND METHOD

The TOC must be capable of continuous operation for extended periods. Communications from the TOC are established and maintained with higher headquarters and subordinate and adjacent units in accordance with standing operating procedures (SOP).

Personnel in the TOC monitor task force operations and keep the command group, task force units, higher headquarters, and adjacent units informed of the situation in the battalion task force area. Planning for future operations is also accomplished in the TOC.

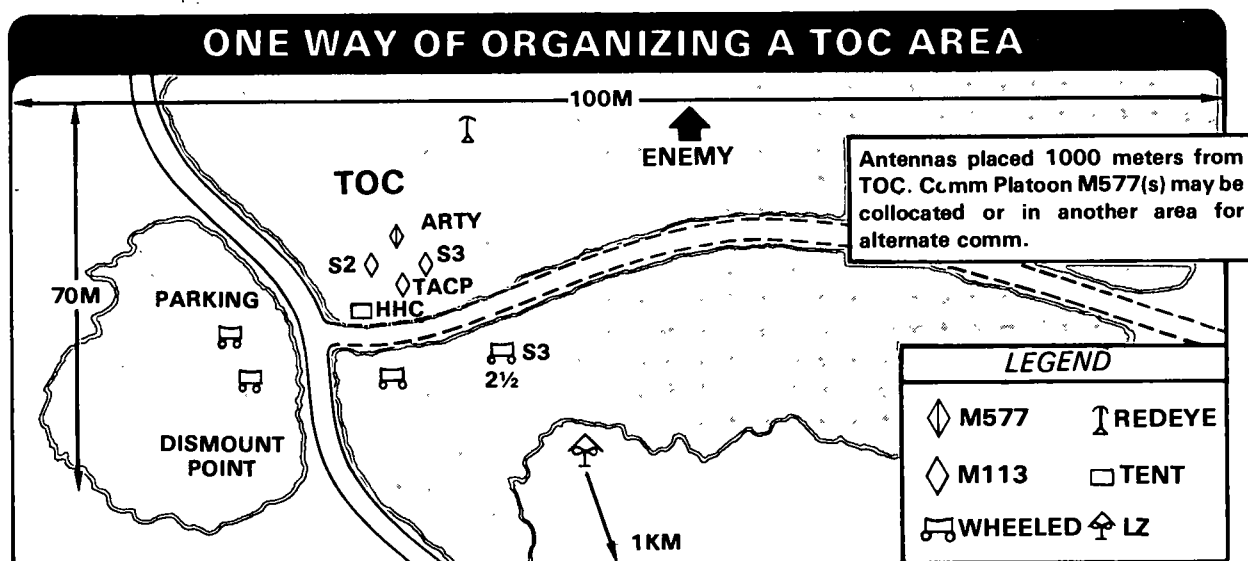
The task force S3 selects the general TOC location based on recommendations of the battalion task force C-E officer. The exact location of the TOC will be selected by the senior man in charge of moving the facility, usually the headquarters company commander. In an attack, the TOC is located well forward, two or three terrain features behind the leading company team. **It may move continuously in a fast moving operation.** In defense, the TOC should be located further to the rear to minimize its vulnerability. When possible, alternate sites are reconnoitered and prepared for occupation.

The location of the TOC must provide for good communication with higher

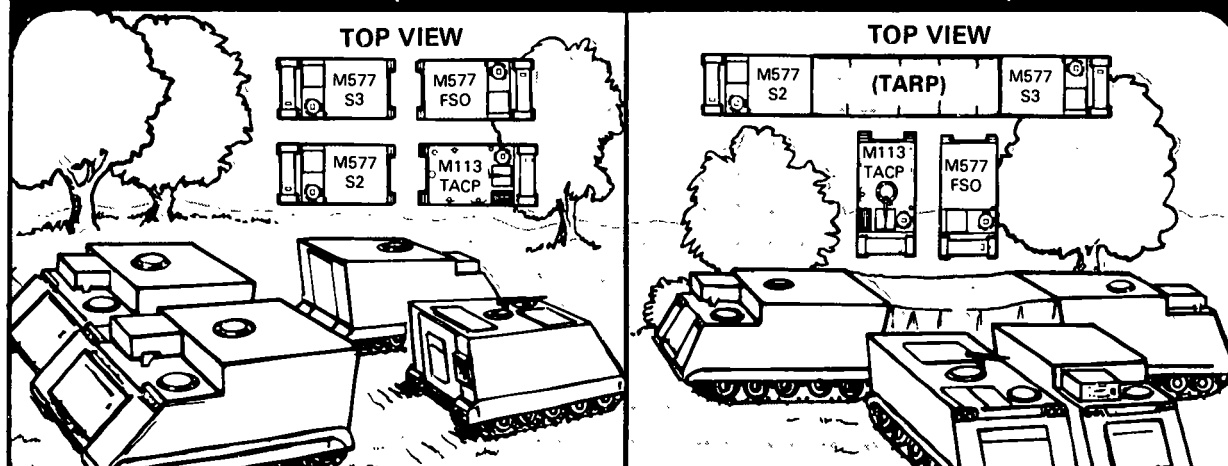
headquarters and subordinate, adjacent, and supporting units. This is the most important consideration when selecting the site. It should be located near routes to higher headquarters, company teams and other subordinate units, and to the battalion task force trains. Care should be taken to avoid crossroads in open terrain or other prominent landmarks which might unnecessarily reveal its location to the enemy.

Built-up areas are good locations for the battalion task force TOC. These areas provide good cover and concealment from enemy observation and fire. The TOC can be located in a basement or other suitable shelter; vehicles can be hidden in garages or barns; light discipline can be enforced by covering windows—allowing operations during darkness with minimum risk.

When built-up areas cannot be used, the TOC should be located on a reverse slope to provide cover and concealment from enemy ground observation and fire. If possible, the area should also provide concealment from enemy air observation and attack. The ground must be sufficiently hard to support vehicle traffic and there must be enough space to disperse vehicles. The following illustration shows one way of organizing a battalion task force TOC area.



TWO WAYS OF ORGANIZING TOC VEHICLES



As a general rule, the task force TOC provides its own security. The task force headquarters company commander, assisted by his first sergeant, organizes a perimeter defense. Vehicle-mounted weapons are given sectors of fire. Provisional rifle squads are organized from TOC personnel and are assigned sectors. Off-duty personnel can be used to man observation posts. Warning systems and alarms must be provided for. All personnel must be proficient in firing the LAW.

When the TOC displaces, it should do so by echelon under the control of the battalion task force S3 or headquarters company commander. One echelon moves to the new location, establishes communications, and gets ready to monitor battalion task force operations and receive and pass on information from brigade. When this echelon is in position, the second echelon should be covered in the battalion task force SOP.

The keys to successful TOC operations on the modern battlefield are mobility and communications security (COMSEC). Excess creature comforts must be stripped away so that the TOC can move on a moment's notice. All personnel must practice perfect COMSEC. To do less is to reveal your location, allowing the enemy to obtain valuable intelligence and target you with massive artillery or ground attack.

**ALL PERSONNEL MUST BE
HIGHLY PROFICIENT IN COMSEC.**

COMMUNICATIONS-ELECTRONICS

The ability of the battalion task force to SEE, SUPPRESS and MOVE depends on its ability to communicate. The task force commander is personally responsible for the adequacy and use of the communications system within his command and for its operation in the system of the next higher headquarters. The commander's communications responsibilities include planning, maintenance, and training. To assist him, he has a C-E staff officer who may also command the battalion task force communications platoon. The C-E officer works under the staff supervision of the

battalion task force S3 or XO. The C-E officer supervises all task force communications activities, to include installation, operations, and maintenance of communications systems and equipment necessary to support task force operations. He is also responsible for preparation of battalion task force communications-electronics operating instructions (CEOI) and safeguarding of COMSEC material. During battalion task force operations, the C-E officer is normally located in the TOC where he can best monitor the battalion task force communications system.

C-E Responsibilities

Senior to Subordinate. A superior unit is responsible for establishing communications to subordinate units. For communications responsibility, an attached unit of any size is considered subordinate to the command to which it is attached.

Supporting to Supported. A supporting unit is responsible for establishing communication to the supported unit.

Reinforcing to Reinforced. A reinforcing unit is responsible for establishing communications to the reinforced unit.

Lateral Communications. Responsibility for establishing communications between adjacent units may be fixed by the next higher commander or SOP. If responsibility is not fixed by orders, the commander of the unit on the left is responsible for establishing communications with the unit on the right.

Restoration. Both units take prompt action to restore lost communications between units.

The communications platoon installs, operates, and maintains the communication system for task force command control and trains elements.

The platoon performs organizational maintenance on communications equipment of the battalion task force headquarters company. It also provides back-up organizational maintenance for company teams and other subordinate units. All elements of the battalion task force evacuate equipment for repair through the communications platoon.

The platoon establishes a telecommunications center for processing incoming and

outgoing messages. It may be collocated with the task force TOC, or nearby to act as an alternate TOC.

The platoon installs and operates the battalion task force wire system. This system includes lines within the TOC and trains area for the commander, staff, and elements of the headquarters company, and to subordinate companies and attached units when time and conditions permit. Priorities for installation of lines are normally established by SOP or as directed by the task force commander or S3. The platoon operates AM-Radio Teletypewriter (RATT) equipment in the brigade RATT net.

FM RADIO NETS

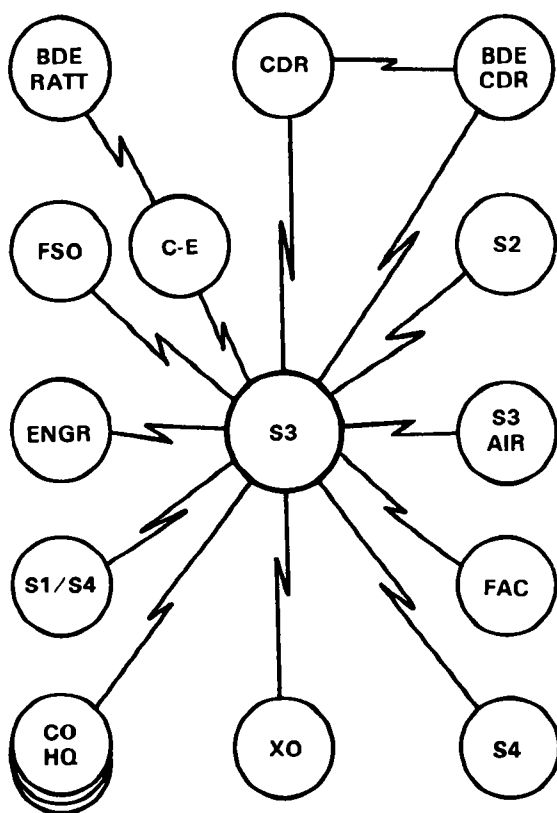
Radio *should not* be the primary means of communication until contact is made. To avoid detection by enemy direction finding (DF) equipment, the battalion task force uses all other means to communicate until it is absolutely necessary to use radio.

Command Net. A secure command net, controlled by the S3, is used for command control of the battalion task force. All organic units normally operate in this net. The field artillery fire support officer, USAF air liaison officer, and supporting units may also operate in this net.

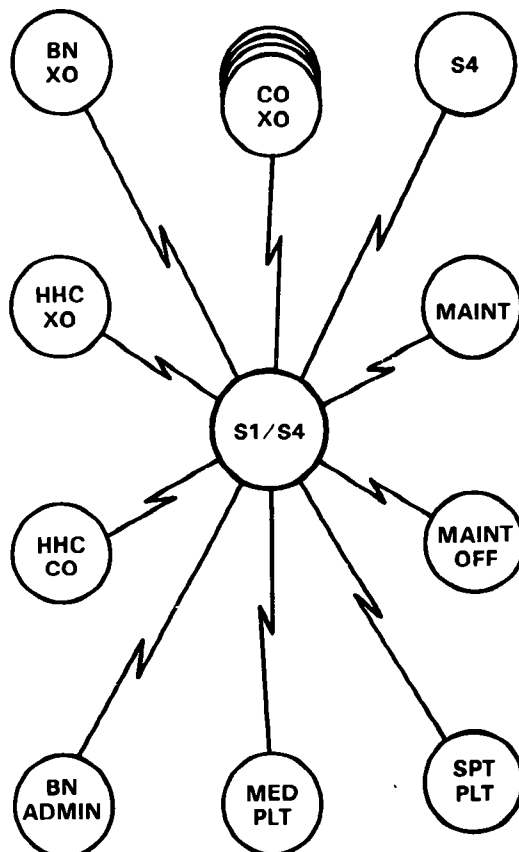
Administrative Logistics (Admin/Log) Net. The admin/log net is controlled by the S4. This net is used for administrative and logistics traffic within the battalion task force. All organic units normally operate in this net.

BATTALION TASK FORCE INTERNAL NETS

COMMAND NET

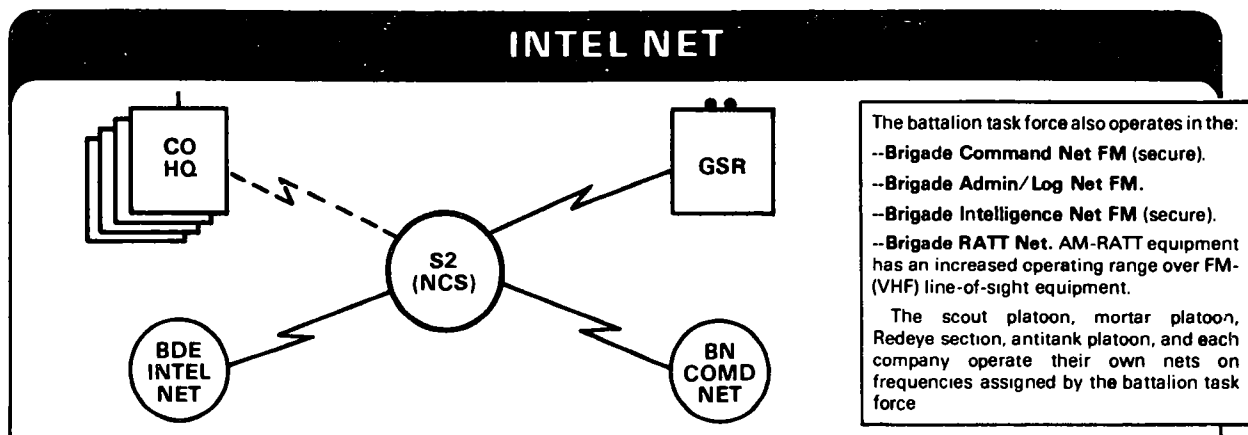


ADMIN/LOG NET

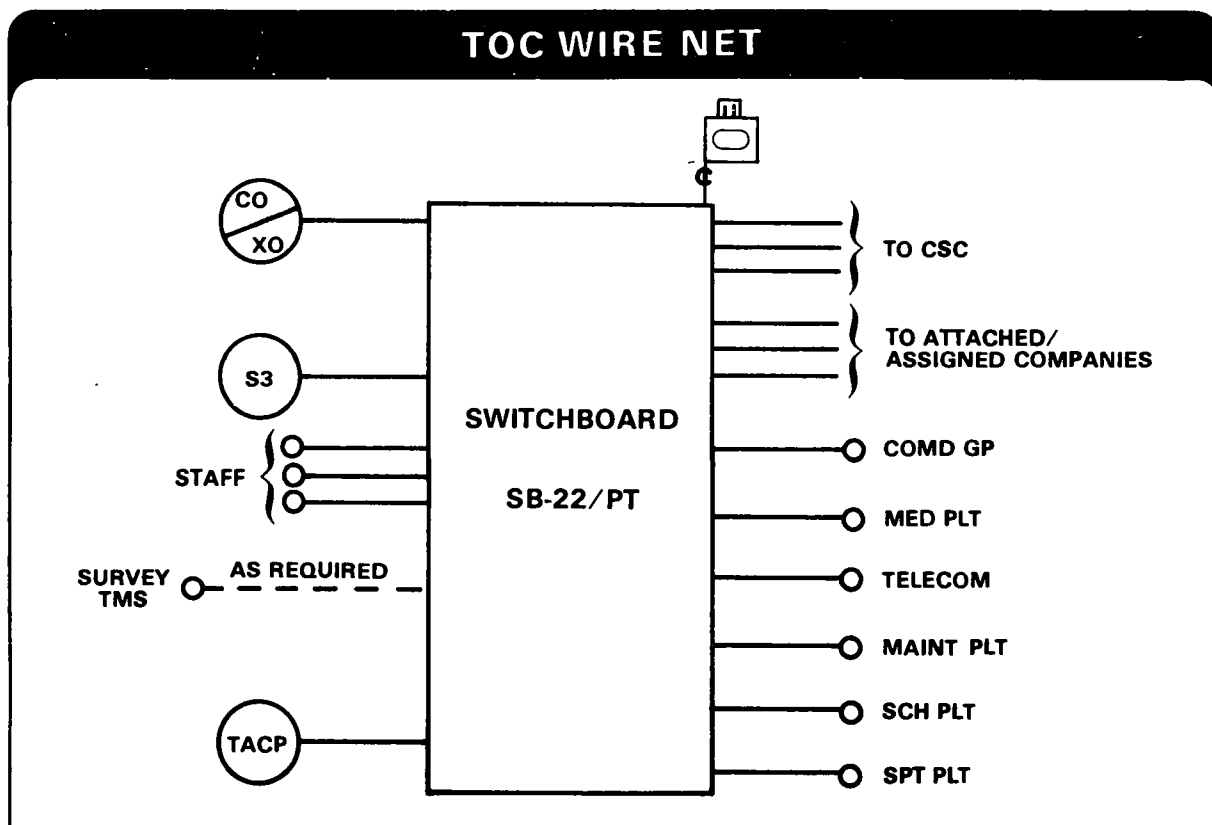


*The heavy mortar platoon, scout platoon, air defense platoon, and antitank platoon (mech bn) will usually operate on the command net directly.

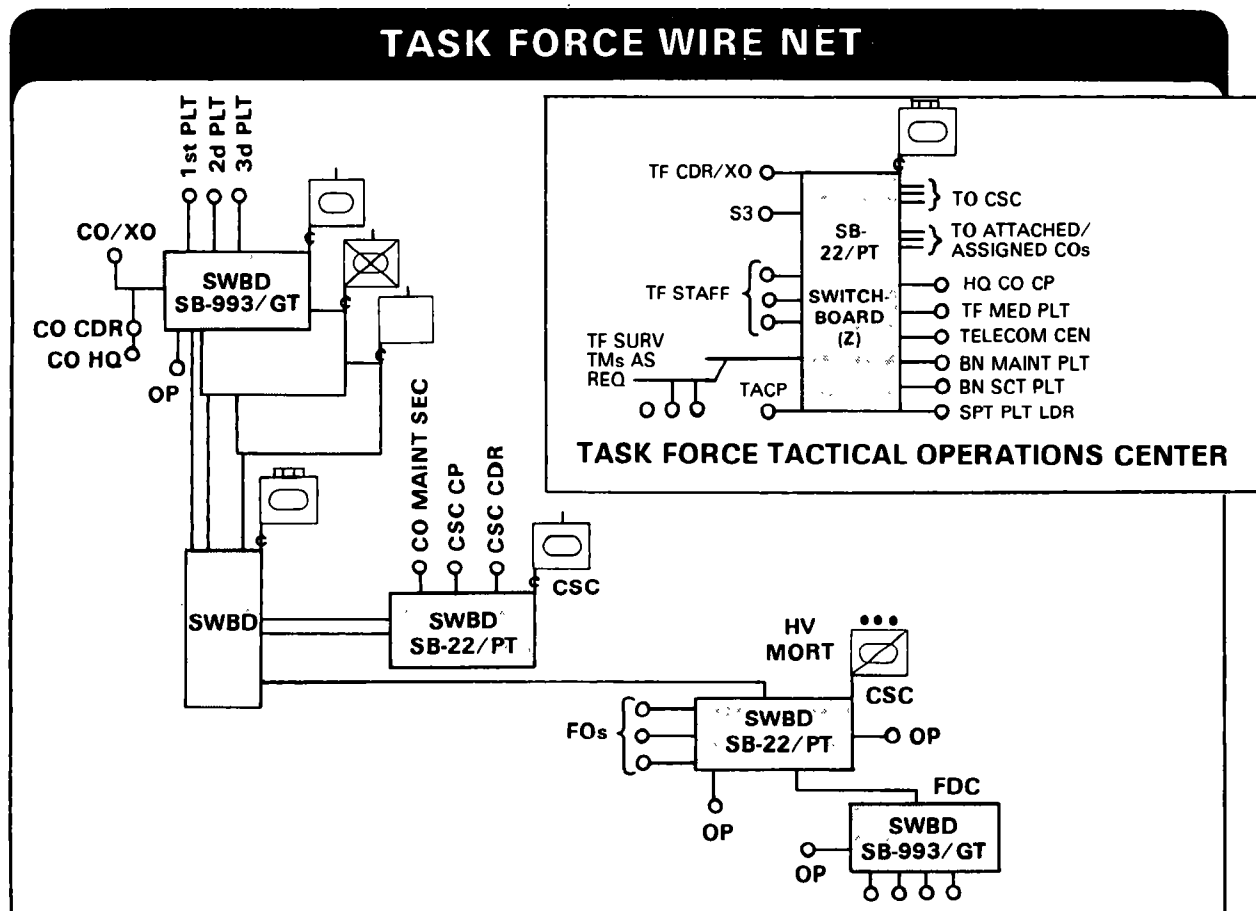
Intelligence (Intel) Net. The intel net, when used, is controlled by the S2. It functions as a surveillance net when required. Units may enter or leave the net as required to pass information.



Special Radio Nets. The fire support officer operates in the supporting field artillery command fire direction net and a designated fire direction net to coordinate field artillery fires. The USAF air liaison officer operates in a USAF tactical air request net (HF/SSB) and a UHF/AM air-ground net to control air strikes.



Wire Nets. Wire is normally used for internal communication in the TOC area and is the primary means of communication within the battalion task force whenever the situation permits.



Messengers. Messengers are used between the TOC, trains, higher headquarters, and company teams. Although messengers are slower and more vulnerable than other means of communication (the messenger may be wounded, killed, or captured en route), they can be used even when units are in contact.

Sound and Visual (SV) Communications. SV communications may be included in the division CEOI extract and should be used at every opportunity. Signals not included in the CEOI may be established for use within

the battalion task force provided they are changed frequently to avoid compromise and are understood by all.

Sound communications include vehicle horns, whistles, and voice. Sound communications may range from simple SOP, such as three “beeps” from a vehicle horn to warn of hostile aircraft, to prearranged recognition signals, such as thumping two steel helmets together in periods of limited visibility. Ground surveillance radar (GSR) can also be used for communication. A patrol, for example, might

report its location by waving a reflector in a prearranged sequence to a monitoring GSR.

Visual communications include pyrotechnics such as flares and smoke grenades, flags, hand and arm signals, and light signals. Visual signals may be SOP or prearranged and can be as simple as signals for parking a vehicle to sending extended messages by morse code or some other code using a flashlight or vehicle headlights (white light or infrared (IR)). When white light or IR is used, care must be taken to conceal the light from enemy observation.

COMMUNICATIONS OPERATIONS

When the scheme of maneuver has been developed, the C-E officer makes a map reconnaissance and, if possible, a visual reconnaissance to determine any special communications requirements, wire routes when wire is to be used, and a suitable location for the battalion task force TOC.

**C-E OFFICER MUST BE
COMPLETELY FAMILIAR WITH
LOCATION OF BATTALION TASK
FORCE TOC.**

When radio is used, transmission must be kept short. Secure means or operational and numerical codes should be used. Low-power transmission and use of terrain to mask signals from enemy DF equipment will minimize risk of detection. Messengers, and sometimes wire, should be used for lengthy transmissions.

During offensive operations, wire is seldom used. When moving to contact, messengers and visual signals should be used whenever possible. Wire may be installed if the battalion task force is halted for extended periods, as, for example, in an assembly area.

During defensive operations, wire is installed as rapidly as possible. As a general rule, the brigade communications platoon lays two or more wire lines from the brigade to the task force TOC. The task force communications platoon lays wire in the TOC and trains areas. Two or more lines over

alternate routes are laid to subordinate units in accordance with priorities established by the battalion task force SOP or by the task force commander.

Commercial lines can be used with permission of the brigade headquarters. If the battalion task force is forced to withdraw, existing wire lines, including commercial lines, are cut and sections removed to preclude use by enemy forces. Once the defensive battle begins, new lines are seldom laid. The battalion task force must then rely on radio, messenger, or visual signals.

Communications Security involves physical security, crypto security, and transmission security. COMSEC procedures should be covered in the battalion task force SOP.

Physical security protects the crypto systems and classified documents (including plain-language copies of messages and carbons) from capture or loss. Before an area is vacated, it is inspected for messages, carbons, cipher tapes, and copies of maps or orders. Wire lines are patrolled to prevent enemy tapping. When CEOI codes or

cryptographic equipment is lost or captured, the facts are reported promptly to the next higher command. The battalion task force SOP should contain instructions on destruction of equipment and classified documents to prevent their capture or use by the enemy. Complete CEOI and CESI should not be carried forward of the task force TOC. When necessary, the C-E officer publishes extracts for use by forward elements.

Cryptosecurity is maintained by using OPCODEs, numeral encryption devices, secure voice devices, and teletype system secure equipment in accordance with authorized instructions. Unauthorized codes or cryptosystems are **not** used.

Transmission security limits the enemy's ability to listen to US Army radio signals. Any signal transmitted can be intercepted and jammed by the enemy. All transmissions should be short, using correct procedure, and treated as if the enemy were listening. Chapter 6, **Reconnaissance and Security**, describes measures to be taken to degrade enemy DF and jamming capabilities.

APPENDIX B

Warning, Operation, and Fragmentary Orders

OVERVIEW

COMBAT ORDERS ARE WRITTEN OR ORAL COMMUNICATIONS that transmit missions pertaining to combat operations. By combat orders, the commander announces his decisions, policies, and intentions as they apply to tactical operations in the field. The three most common types of combat orders at battalion task force level are: warning orders (WO), operation orders (OPORD), and fragmentary orders (FRAGO). For ease of understanding, simplicity, and commonality, the first two types have a prescribed format and purpose. This appendix serves as a guide only. For additional information refer to FM 101-5, *Command and Control of Combat Operations*.

CONTENTS

	PAGE
OVERVIEW	B-1
WARNING ORDERS	B-2
OPERATION ORDERS	B-2
FRAGMENTARY ORDERS	B-3
ANNOTATED ATTACK ORDERS	B-4

B-1

WARNING ORDERS

Warning orders give advance notice of an action or an order that is to follow. They are usually issued as brief oral or written messages. Warning orders have four minimum essential elements:

ADDRESSEES

Tell recipients immediately if the order pertains to them.

NATURE OF THE OPERATION

Stated in sufficient detail to allow recipients to begin routine or special preparations for the operation.

TIME AND PLACE

When the entire order is to be issued and who is to come—exact location and time tell subordinate commander when and where to go to receive the entire order. An SOP "orders group"—detailing who usually comes to receive orders—helps shorten this process.

TIME OF THE OPERATION

Stated as precisely as possible, allows recipients to allocate time and set priorities.

It is essential that leaders and units at all levels have maximum time to prepare for an operation. Therefore, warning orders are issued at **all** levels of command down to squad or section. Upon receipt of a WO, each commander issues his own warning order to subordinates in as much detail as he can.

OPERATION ORDERS

Operation Orders detail the coordinated actions necessary to carry out the commander's concept. They are used for both tactical operations and road marches. The battalion task force commander or his S3 issues **orally** the order to subordinate commanders (as described in Chapter 3), following a standard 5-paragraph format.

The tempo of mounted operations does not often allow time for preparation of a complete written order. The S3 then may prepare a written order for historical purposes after the operation.

The operation is most often conducted from the oral OPORD and a graphic overlay which shows boundaries, checkpoints, and battle

position numbers common to the task force's mission. In some cases there may not be time to prepare an overlay; subordinate leaders will then have to copy the graphic control measures from the TF commander's map.

The most important part of any order is the commander's concept of the operation. . . He should personally explain his concept to subordinates in considerable detail so that there are no misunderstandings about what they are to do. Understanding how the commander envisions the battle being fought assists them in carrying out actions on their own initiative when necessary—confident that they are operating within the framework of the commander's concept. The example attack and defense orders which follow provide only the framework of the concept of operations. The commander would expand it orally.

TURN THE PAGE FOR EXAMPLE OF OPERATION ORDERS. THE ATTACK ORDER IS ANNOTATED TO EXPLAIN EACH PART OF AN OPORD.

FRAGMENTARY ORDERS

Fragmentary Orders contain missions of immediate concern to subordinate units. They are issued as oral or written orders and contain brief, specific, timely instructions. FRAGOs are used to change or modify the OPORD. FRAGOs include only those items which have changed since the issue of the last OPORD and are critical to performance of the mission. They follow the same sequence as an OPORD.

Example: FRAGO Over Secure Radio.

"We've got to take out those SAGGER positions on the hill at CP40 before continuing."

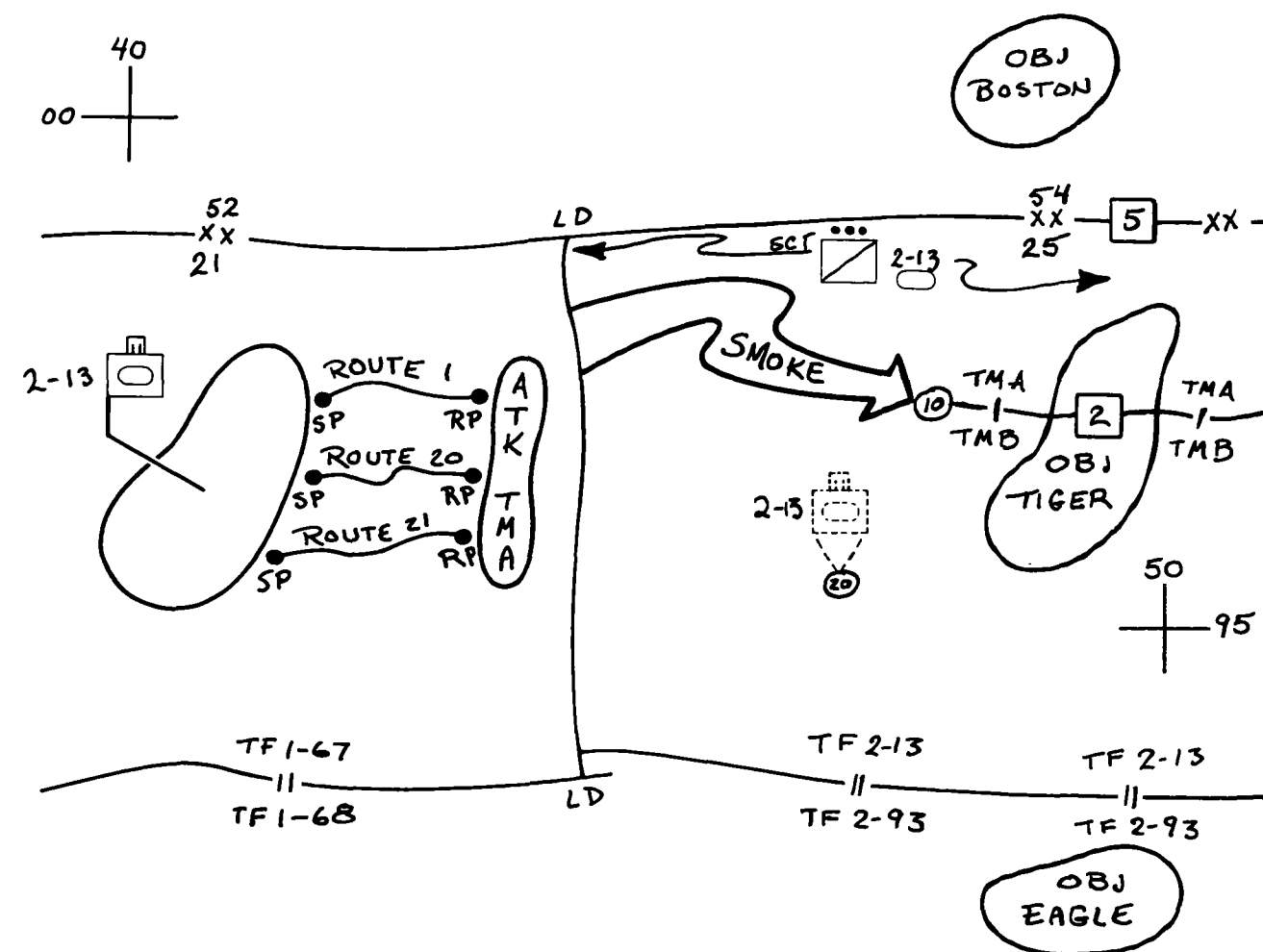
Alpha: "Move to 38 and suppress 40."

Bravo: "Overwatch Alpha's move. Then Charlie's. Detach a mech platoon to Charlie. Have them come up on his net immediately."

Charlie: "Move around the right of 41 and take 40 from the right flank."

Scouts: "Screen Charlie's right."

NOTE
THIS PAGE MAY BE LEFT FOLDED OUT AS AN AID IN REMAINING ORIENTED WHILE FOLLOWING THE EXAMPLE ORDER.



ANNOTATED ATTACK ORDERS

Heading

Note:

① Determined by S3. Classified per AR 380-5. Classification is shown at top and bottom of each page of the order.

② Each staff officer having a responsibility in the preparation of the operation order provides S3 with status of oral orders pertaining to his activity. If no oral orders were issued, this comment will be left out. If there were oral orders, such expressions as "No change from oral orders" or "No change from oral orders except for paragraph ___" will be used, as appropriate.

③ a. Copy number: Assigned by S3 (must be shown).

b. Issuing unit: May be in code.

c. Place of issue: Show name of town or place, coordinate location (in parentheses), and country. May be in code.

d. Date-time group: Time order is signed and is effective unless otherwise indicated in the body of the order. It is also the date and time when attachments and detachments become effective unless a different effective time is shown under task organization, attachments and detachments, or coordinating instructions in the body of the order. Date-time group must include time zone suffix.

e. Message reference number: Assigned by S3 from a block of numbers provided by the battalion task force C-E officer. Its use facilitates acknowledgement of the order.

④ Operation order number is assigned by S3. Numbers run serially throughout the calendar year.

⑤ Each staff officer providing information or entries for the operation order provides S3 with references as appropriate. List any maps, charts, or other documents required to understand the order. Reference to a map will include the map series number (and country or geographic area, if required), sheet number (and name if required), edition, and scale.

⑥ The time zone applicable to the operations. Times in other zones are converted to this time zone for this operation.

⑦ a. Organization for combat is developed by S3 based on the commander's decision and concept of the operation and the coordination with staff officers having responsibilities for combat and combat support operations. Indentation of a unit indicates that it is attached to the unit under which it is listed unless qualified by a parenthetical term indicating a different command relationship, i.e., (DS), (GS), (OPCON). A unit that is further indented under a unit that itself is indented has the same command relationship.

b. Task organization indicates the organization for combat for the operation concerned and includes combat and combat support units. Task organization normally is shown immediately preceding paragraph 1. However, it may be shown:

(1) In an annex. This technique is used when a large number of units are involved.

(2) In paragraph 3 of the operation order, if simple.

c. Units listed under a major subordinate control headquarters are in an attached status unless otherwise indicated in parentheses following the unit designation.

Example: 1 Redeye Tm (DS).

d. Missions are not assigned in the task organization.

e. Subordinate control headquarters are listed in the following order:

(1) Combat units.

(a) Combined arms teams (in numerical or alphabetical order).

(b) Infantry (in order of infantry, infantry (mechanized), airmobile, and airborne infantry).

(c) Armor (in order of tank, attack helicopter, armored cavalry, and air cavalry).

(2) Combat support company (in order of scout platoon, heavy mortar platoon, AT platoon, Redeye Section, GSR Section, AVLB Section).

f. Attachments reflected in task organization need not be repeated in paragraph 1c or in paragraph 3.

- ① (CLASSIFICATION)
- ② (NO CHANGE FROM ORAL ORDERS)

③ COPY NO. 1 OF 1 COPY
TF 2-13 ARMOR
GAINFIELD (PVIL92) GERMANY
261900A NOV. 19—
P13

- ④ OPOD 21
- ⑤ REFERENCE: MAP, SERIES M642 GERMANY, SHEETS L7722 AND L7724 (NORNBERG, BAMBERG), EDITION 1-AMS, 1:50,000
- ⑥ TIME ZONE USED THROUGHOUT THE ORDER: ALFA
- ⑦ TASK ORGANIZATION:

TMA
A/2-93 MECH (2-PHs)
1/B/2-13 ARMOR
1/C/2-13 ARMOR

TMC
C/2-13 ARMOR (-)
1/A/2-93 MECH
1 AVLB

TMB
B/2-13 ARMOR (-)
2/A/2-93 MECH
AVLB SEC (-)

TFCON
SCT PLT
HV MORT PLT
REDEYE SEC
GND SURV SEC
1/B/25 ENGR (DS)

Body

Note:

8 Paragraph 1, **SITUATION**, always contains three subparagraphs:

a. Subparagraph a, **Enemy Forces**. Provided by S2 and contains enemy information only. Instructions are not included. Reference may be made to an intelligence annex, operation overlay (if enemy information is shown), periodic intelligence report, or intelligence summary. Only enemy information vital to the entire command is included. Letter designation of the annex is provided by S3.

b. Subparagraph b, **Friendly Forces**. S3 extracts from the operation order of the next higher headquarters. Subparagraph b contains information concerning higher, adjacent supporting, and reinforcing units as applicable. Information should be limited to that which subordinate commanders need to know to accomplish their assigned mission.

c. Subparagraph c, **Attachments and Detachments**. S3 determined from the operation order of the next higher headquarters, units attached to or detached from the battalion task force. He lists these units and indicates effective time of attachment or detachment, if different from the date-time group in the heading of the order. If these units are already listed in task organization, they need not be included in subparagraph c.

9 Paragraph 2, **MISSION**, is a clear, concise statement of the task to be accomplished by the command and will include those tasks specified by the higher headquarters directing the operation and may include implied tasks determined by the commander as a result of his mission analysis. It normally includes the elements of who, what, when, and, as appropriate, why and where. This paragraph has no subparagraphs. The mission is stated in full regardless of how clearly it may be shown on the operation overlay.

10 Paragraph 3, **EXECUTION**.

a. The first subparagraph in paragraph 3 of the operation order is the concept of operation. It is derived by S3 from the commander's decision and concept. The concept of operation states the tactical plan, including the scheme of maneuver and plan of fire support. It may also provide the commander's visualization of the conduct of the overall operation; it may clarify the purpose of the operation, discuss phasing (if applicable), employment of nuclear and chemical fires, and whether or not a preparation is to be fired and its duration. Priority of artillery fires as determined by the commander is shown here. Paragraph 3a may be further divided into subparagraphs titled (1) Maneuver, and (2) Fires. When the operation is to be executed in two or more distinct phases, the concept of operation or maneuver subparagraph will be further subparagraphed to describe each phase separately. Phases will be designated as Phase 1, Phase II, etc. Material in paragraph 3a(1) is informative and not directive in nature.

8

1. SITUATION
 a. ENEMY FORCES. ENEMY MOTORIZED FORCES WHICH OPPOSE 21ST INF DIV ARE DEFENDING IN DEPTH. FOUR INFANTRY PLATOONS OCCUPY HILL 723 (OBJ. TIGER). ONE SQUAD OCCUPIES HILL 604 (CP-10). BETWEEN HIGHWAY 19 (LD) AND HILL 723, MOVEMENT OF SINGLE BRDM HAS BEEN REPORTED.

b. FRIENDLY FORCES.

- (1) 2D BDE ATKS 270600 NOV THRU 21ST INF DIV TO SECURE HIGH GROUND VICINITY NURNBERG (OBJ'S TIGER AND EAGLE); PREP TO CONT ATK TO EAST TO SECURE WEIDEN (TR 9607).
- (2) TF 2-78 MECH ATKS 270600 NOV ON NORTH (LEFT) TO SECURE OBJ BOSTON.
- (3) TF 2-99 MECH ATKS 270600 NOV ON SOUTH (RIGHT) TO SECURE OBJ EAGLE.
- (4) TF 2-14 ARMOR: FOL TF 2-13 ARMOR; PREP TO ASSIST OR ASSUME MSN OF EITHER LEADING TF
- (5) 2-15 FA (155, SP) DS 2D BDE, PRIORITY OF FIRES TF 2-13 ARMOR.

c. ATTACHMENTS AND DETACHMENTS. TASK ORGANIZATION.

9

2. MISSION

TF 2-13 ARMOR CONDUCTS PAS OF LINES AND ATKS 270600 NOV TO SECURE HILL 723; PREP TO CONT ATK TO EAST TO SECURE WEIDEN.

10

3. EXECUTION

a. CONCEPT OF OPERATION:

(1) MANEUVER. THIS OP CONSISTS OF A PAS OF LINES THRU TF 1-67 INF, 2D BDE, 21ST INF DIV, AND A DELIBERATE ATK TO SECURE OBJ TIGER. TF CROSS LD ON AXIS SMOKE WITH TMA.

⑪ Recommended by FSO. Letter designation of annex is assigned by S3.

⑫ Reserve. S3 determines from the commander's explanation and amplification of his decision if included. It is always the next to the last subparagraph in paragraph 3. Troop units not committed initially are shown.

⑬ Coordinating Instructions: The final subparagraph of paragraph 3 is titled "Coordinating Instructions" and contains tactical instructions and details of coordination applicable to two or more units of the command, listed in any sequence. When there are no coordinating instructions, the word *None* will be placed after the title. Coordinating instructions may include:

a. Essential Elements of Information (EEI) (brigade and higher levels) or specific orders for collection of information (normally battalion and lower levels) of an intelligence nature.

Note: The battalion S2 will normally put out specific orders and requests for these items, but he may also include them in the order for emphasis.

b. Movement instructions, e.g., order of march, start point time, etc.

c. Any counterintelligence measures not a matter of SOP.

d. Troop safety instruction, if different from SOP.

e. Effective time of attachment or detachment of units within the issuing headquarters organization, when such times are different from the effective time of the order.

f. References to annexes not previously mentioned.

COND GP, TM B, TM C IN THAT ORDER; TMA SECURE CP 10 OVERWATCH BY TM B. TMS A AND B CONT ATK TO SECURE OBJ TIGER, TM A IN THE NORTH (LEFT), TM B IN THE SOUTH (RIGHT); TM C SUPPRESS CPs 15 AND 20 AND OBJ TIGER FROM CP 10. PREP TO CONT ATK TO EAST TO SECURE WEIDEN.

- 11 (2) FIRES. CONVL PREP ON CP 10 AND OBJ TIGER BEGIN AT 0600, LIFTED ON O, PRI FIRES TO TMA. ANNEX A (FIRE SUPPORT).

b. TM A:

c. TM B:

d. SCT PIT: ASST TF MOVE TO LD; SCREEN NORTH (LEFT) FLANK; MAKE CONTACT AT CONTACT POINT 5.

e. HV MORT PIT: GS. PRI OF FIRES TO TMA.

f. REDEYE SEC: GS. PROTECT IN PRI: TM A, TM B, TM C, CP, TRAINS.

- 12 g. GND SURV SEC: GS. ANNEX B (SURVEILLANCE).

h. RESERVE: TM C: FOL TM B: SUPPRESS CP 15, 20, AND OBJ TIGER; PREP TO ASSIST OR ASSUME MSN OF EITHER LEADING TM.

i. COORDINATING INSTRUCTIONS.

- 13 (1) COORD PAS OF LINES PRIOR TO 262400 NOV

(2) ORDER OF MARCH:

(a.) ROUTE 1: TOC AND TRAINS

(b.) ROUTE 2: TM B AND GND SURV SEC

(c.) ROUTE 10: TM A, COND GP, TM C, HV MORT PLT.

(3) SP TIME: 270530 NOV

(4) EAST IS 12 O'CLOCK FOR CONSOLIDATION. TEAMS CONSOLIDATE BY SOP.

⑭ Paragraph 4, SERVICE SUPPORT. Due to the functional system of combat service support currently existing and the large number of procedures that are a matter of SOP, instructions in paragraph 4 at task force level may be very brief. Since distribution of a division combat service support annex is made down to and including task force and separate company, a reference to these documents may suffice. However, the paragraph will normally contain information or instructions pertaining to trains, messing, supply, and maintenance. When a service support annex is used, paragraph 4 of the operation order may consist only of a reference to annex. Subjects, as applicable, appearing in paragraph 4 are arranged in the following sequence:

- a. General
- b. Materiel and services
- c. Medical evacuation and hospitalization
- d. Personnel
- e. Civil-military cooperation
- f. Miscellaneous

⑮ Paragraph 5, COMMAND AND SIGNAL. Instructions relative to command and the operation of signal communications. This paragraph may have as many subparagraphs as required.

Three of the more common subheadings are Signal, Command, and Axis of Command Post Displacement. Signal instructions may refer to an annex, but, as a minimum, should list the index and issue number of the communication-electronics operations instructions (CEOI) that is in effect and instructions for control, coordination, and establishment of priorities in the use of electromagnetic emissions, if not already issued. Command instructions include command post (CP) location of pertinent units. Designation of alternate CP and succession of command will be entered in this subparagraph if not adequately covered in SOP or annex. The axis of command post displacement consists of one or more future locations. If shown graphically, this subparagraph is not used.

Ending

⑯ Directs the recipient of the order to acknowledge receipt. Acknowledgement may be made in the clear, using the message reference number contained in the heading.

⑰ The commander or his authorized representative signs the original copy of the operation order. If this signature cannot be reproduced, the S3 authenticates subsequent copies of the order. Annexes, appendixes, tabs, and inclosures issued with the order do not require signature or authentication. Annexes issued separately require signature

(or authentication) in the same manner as the order. Authentication is performed by the primary staff officer responsible for the annex. Examples of signature blocks for copy 1 of the order, annexes, appendixes, tables, and inclosures:

Example 1: HASZARD
MG

Example 2: FOR THE COMMANDER:
FRANKLIN
Chief of Staff

⑱ Annexes are lettered alphabetically and are listed in the order in which they appear in the operation order. S3 designates the letter to be associated with a given annex. Annexes are prepared by the appropriate officer having staff responsibility for the activity, arm, or service covered by the annex. When an annex is to be issued later and, therefore, does not accompany the order, the parenthetical phrase (to be issued) is shown following the listing of the annex.

⑲ A distribution formula is included in standing operating procedures. S3 establishes distribution in coordination with other appropriate staff officers. Distribution must also be made to adjacent and supporting units not included in SOP distribution.

b. S3 determines tasks for subordinate units from the commander's decision and concept. Separate lettered subparagraphs give the specific tasks to be accomplished by each element of the command charged with the execution of a tactical mission. When a unit task is adequately shown graphically, that unit will be addressed in its own subparagraph, with a colon to indicate its tasks is shown graphically.

Example:

b. Team A:

(Tasks shown graphically need not be repeated in the body of the order.)

(1) Combined arms commands in numerical or alphabetical order.

(2) Infantry

(3) Armor

(4) Scout Platoon

(5) Heavy Mortar Platoon

(6) Antitank Platoon (mech only)

(7) Redeye Section

(8) Ground Surveillance Radar Section

(9) AVLB Section (tank only)

(10) Reserve

- 14 4. SERVICE SUPPORT
 a. GENERAL. TRAINS REMAIN PRES LOC; DISPLACE FOLLOWING TOC

b. MATERIAL AND SERVICES.

- (1) TRANSPORTATION. TF SR, PROJ: GERWARDS-HOFEN (PV2299), WEISENDORF (PV3198), ERLANGEN (PV4595).
 (2) MAINTENANCE. MAINT COLL PTS PV3196, PV4494.

c. MEDEVAC AND HOSPITALIZATION. MEDEVAC TO TRAINS FF 1-67 INF INIT; TF TRAINS TF 2-13 ARMOR ON O.

d. PERSONNEL. PW COLL PTS: VIC TF TRAINS TF 1-67 INF INIT; TF TRAINS TF 2-13 ARMOR ON O.

- 15 5. COMMAND AND SIGNAL
 a. SIGNAL
 (1) CEOI INDEX 1-13 IS IN EFFECT.
 (2) LISTENING SILENCE 270001 NOV UNTIL EN CONTACT.
 b. COMMAND
 (1) COMD GP FOLLOW TM A:
 (2) TOC: REMAIN PRES LOC, MOVE ON O.

16 ACKNOWLEDGE

17 Carney
 V CARNEY
 LTC

18 ANNEXES:

- a. -- FIRE SUPPORT (OMITTED)
 b. -- SURVEILLANCE (OMITTED)

19 DISTRIBUTION: A

(CLASSIFICATION)

NOTE

THIS PAGE MAY BE LEFT FOLDED OUT AS AN AID IN REMAINING ORIENTED WHILE FOLLOWING THE EXAMPLE ORDER.

EXAMPLE BATTALION TASK FORCE DEFENSE ORDER

(CLASSIFICATION)

(NO CHANGE FROM ORAL ORDERS)

COPY NO. 4 OF 6 COPIES
TF 2-10 ARMOR
FRAUROMBACH (NB437150)
GERMANY
230600 JULY 19—
A17

OPORD 15

REFERENCE: MAP, SERIES M745, GERMANY, SHEETS L6322 AND L5324 (LAUTERBACH, HUNFELD), 1:50,000

TIME ZONE USED THROUGHOUT THE ORDER: ALFA

TASK ORGANIZATION:

TM A

A/2-10 ARMOR (-)
1/C/2-94 MECH
1 REDEYE TM (DS)
1 GND SURV TM
AVLB SEC (-)

Co B

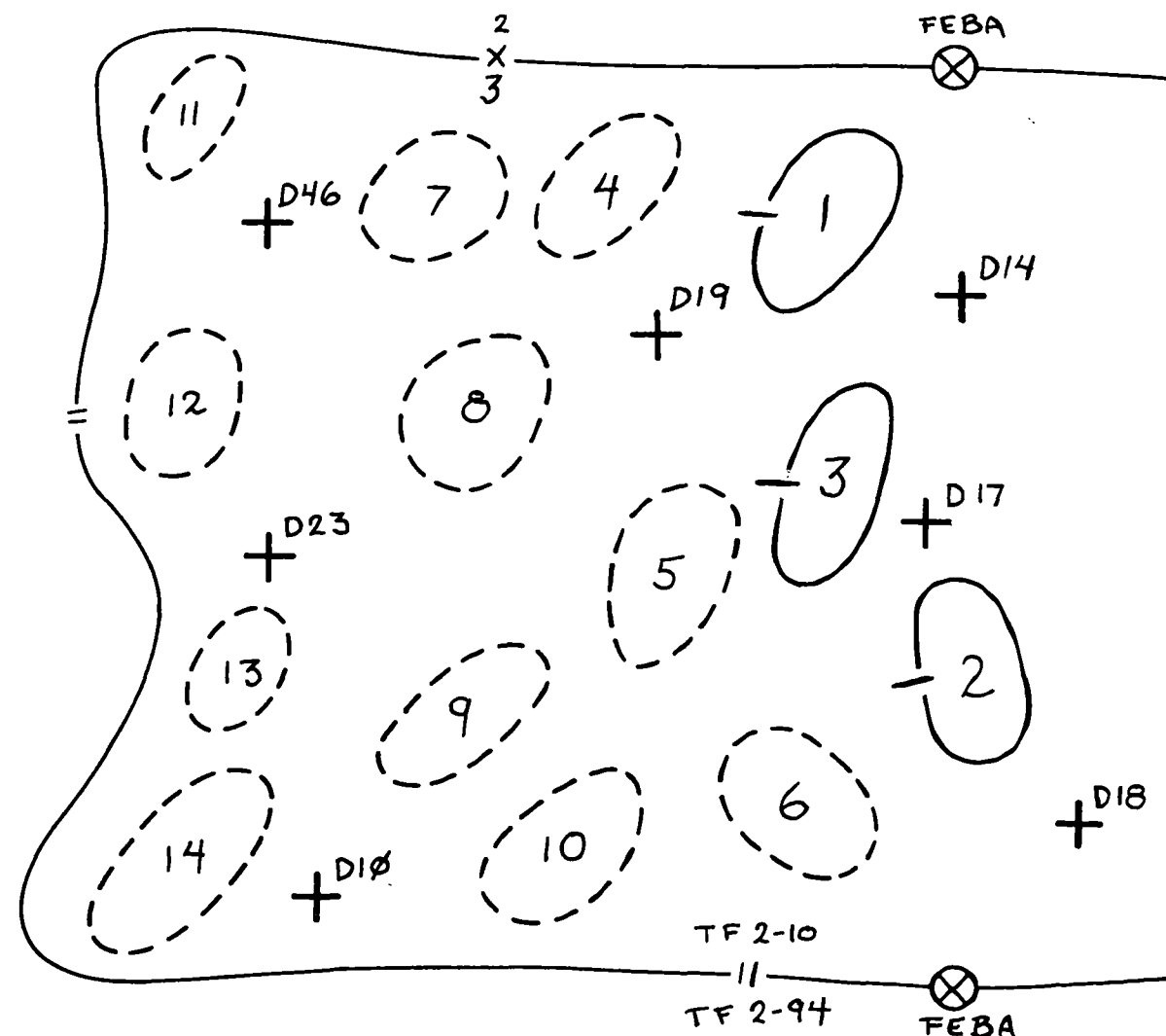
B/2-10 ARMOR (-)
1 REDEYE TM (DS)

TM C

C/2-94 MECH (-)
1/A/2-10 ARMOR
1/B/2-10 ARMOR
1 REDEYE TM (DS)
1 GND SURV TM
1 AVLB

TF CON

SCPT PLT
GND SURV SEC (-)
1 REDEYE TM
HV MORT PLT
REDEYE SEC (-)



1. SITUATION

- a. ENEMY FORCES. ENEMY FORCES ARE EXPECTED TO ATTACK FROM THE EAST WITHIN 48 HOURS. ONE TANK DIVISION EXPECTED TO ATTACK INTO 3^D BDE SECTOR.
- b. FRIENDLY FORCES.
 - (1) 3^D BDE DEFENDS NLT 250700 JUL IN SECTOR.
 - (2) 2^D BDE DEFENDS NLT 250700 JUL ON NORTH, IN SECTOR.
 - (3) TF 2-94 MECH DEFENDS NLT 250700 JUL ON SOUTH, IN SECTOR
 - (4) 2-50 FA (155, SP): DS, 3^D BDE.
- c. ATTACHMENT AND DETACHMENT. TASK ORGANIZATION.

2. MISSION

TF 2-10 ARMOR CONDUCTS ACTIVE DEFENSE NLT 250700 JUL IN SECTOR; ASSISTS WITHDRAWAL OF COVERING FORCES IN SECTOR.

3. EXECUTION

- a. CONCEPT OF OPERATION.
 - (1) MANEUVER. TF 2-10 ARMOR OCCUPIES BATTLE POSITIONS IN SECTOR NLT 250700 JUL WITH TM A ON BP-1, TM C ON BP 2 AND Co B ON BP 3; MAINTAINS CONTACT WITH COVERING FORCES; ASSISTS WITHDRAWAL OF COVERING FORCE; DEFENDS IN SECTOR.
 - (2) FIRES. PRI OF FIRES INIT TO SCT PLT, UPON WITHDRAWAL TO TM A. ANNEX A (FIRE SUPPORT).
- b. TM A
 - (1) DEFEND BP1
 - (2) PREPARE BP4
 - (3) RECON BP'S 7, 8, 11, AND 12
- c. RESERVE: Co B
 - (1) OCCUPY BP 3
 - (2) PREPARE BP 5
 - (3) RECON BP'S 4, 6, 8, 9, 12, AND 13
 - (4) PREP TO REINFORCE OR CATK, PRI TO VICTIM A.

BATTALION TASK FORCE DEFENSE ORDER (CONT)

d. TM C

- (1) DEFEND BP 2
- (2) PREPARE BP 6
- (3) RECON BPS 5, 9, 10, 13, 14.

e. SCT PLT:

- (1) SCREEN FORWARD OF FEBA
- (2) ESTABLISH CONTACT WITH AND ASSIST WITHDRAWAL OF COVERING FORCES IN SECTOR.
- (3) UPON WITHDRAWAL, SCREEN NORTH (LEFT) FLANK.

f. HV MORT PLT: GS; PRIORITY OF FIRES TO SCT PLT, THEN TO TMA.

g. REDEYE SEC(-): GS; PROTECT IN PRIORITY TOC, TRAINS.

h. COORDINATING INSTRUCTIONS:

- (1) REPT LOC PLT BPS.
- (2) PREP TO RECEIVE OR DETACH PLT AS DIR.
- (3) PREP BRIDGES OVER BROWN RIVER FOR DESTRUCTION; DESTROY ON O.
- (4) ASSIST PASSAGE OF COVERING FORCES.
- (5) ANNEX B (BARRIER).

4. SERVICE SUPPORT

a. GENERAL

- (1) TF FLD TMS LOC VIC NB 501362.

- (2) TF ABT TMS LOC VIC NB 425155; MOVE ON O.

b. MATERIAL AND SERVICE.

(1) SUPPLY

- (a) C I III: POL STOCKPILES AT BPS 7, 8, 9.

- (b) C I V: STOCKPILES AT BPS 7, 8, 9.

(c) C I VII:

1. ECHO RPTS TO S4 ASAP

2. DRIVERS REMAIN WITH VEHICLES DURING EVAC.

(2) TRANSPORTATION. TF SR ROUTE RED.

- (3) MAINTENANCE. MAINT COLL PTS LOC NB 463152 AND NB 460134. PLT EVAC TO TM, TM EVAC TO COLL PT. CONTROL SUBSTITUTION AUTH.

5. COMMAND AND SIGNAL

a. SIGNAL

- (1) CEOI INDEX 1-5 IN EFFECT,
- (2) LISTENING SILENCE ALL ELMS EXCEPT SCT PLT, TF
COMD NET UCS UNTIL EN CONTACT.
- (3) EMERGENCY SIGNAL FOR COVERING FORCES AND SCT PLT:
 - a. DAY: REQUEST PERMISSION TO WITHDRAW--RED SMOKE
STREAMER; PERMISSION GRANTED--GREEN SMOKE
STREAMER.
 - b. NIGHT: REQUEST PERMISSION TO WITHDRAW--WHITE
STAR CLUSTER--PERMISSION GRANTED--GREEN
STAR CLUSTER.

b. COMMAND

- (1) COMD GP LOC INIT SCHLOTZAU (NB453157)
- (2) CP LOG NB437150
- (3) ALT CP---CBT SPT Co HQ

ACKNOWLEDGE

JONES
LTC

OFFICIAL:

Smith
SMITH
S3

ANNEXES: A--FIRE SUPPORT (OMITTED)
B--BARRIER (OMITTED)

DISTRIBUTION: A

(CLASSIFICATION)



APPENDIX C

Records and Reports

OVERVIEW

REPORTS ARE THE PRIMARY MEANS of providing information upon which plans and decisions are based. Reports must be accurate, timely, and complete. Negative information ("There is no enemy at ...") is frequently as important as positive information. Standard procedures save time. Reports serve as the primary record of operational events. There are three broad categories of reports:

1 Operation Reports.

2 Intelligence, Counterfire, and Nuclear, Biological, Chemical Warfare (NBC) Reports.

3 Administrative Reports.

Means of transmitting reports and safeguarding information will vary from theater to theater, depending on equipment available and local requirements.

CONTENTS

	PAGE
OVERVIEW	C-1
OPERATION REPORTS	C-2
Operational Situation Report (SITREP)	C-2
Situation/Status Report (STATREP)	C-2
Minefield Report	C-3
INTELLIGENCE, COUNTERFIRE, AND NBC REPORTS	C-3
Spot Report (SPOTREP)	C-3
Reports of Enemy Shelling, Bombing, or Nuclear, Biological, Chemical Warfare Activity	C-4
Report of Radiation Dose-Rate Measurement	C-5
Patrol Report	C-6
ADMINISTRATIVE REPORTS	C-6

OPERATION REPORTS

Operational Situation Report (SITREP) is submitted to higher headquarters by a battalion task force to summarize the tactical situation for a specific period. The format and period for reporting will be specified by the higher headquarters SOP. Some elements which may be required are:

- Period covered - Dates of report; maps used.
- Enemy - Units encountered; estimate of strength, morale, knowledge of friendly activities; brief description of enemy activity and contacts.
- Own Situation - Location of units, boundaries, headquarters (may be an overlay); location of adjacent and supporting units; brief description and results of operations and noneffective units.
- Administration - Brief description of abnormal situations as they affect the tactical situation.

Situation/Status Report (STATREP) is submitted by company team to report their tactical situation and status. It is submitted after significant events and as otherwise specified by battalion task force. A fragmentary report is submitted when entire report is not required.

FORMAT

Report as of (DTG)

ALFA*—REPORTING UNIT (call sign).

BRAVO*—LOCATION(s).

Company report locations of immediate subordinate elements, command post, trains, and observation posts. Platoons report only center of mass or front line trace and observation post locations.

CHARLIE*—ACTIVITY.

Brief summary of activity since last report.

*These items are mandatory.

DELTA—PERSONNEL

Losses since (DTG) (in code):

DELTA ONE—Killed in action.

DELTA TWO—Wounded in action.

DELTA THREE—Mission in action.

DELTA FOUR—Captured.

DELTA FIVE—Nonbattle casualties.

DELTA SIX—Administrative losses.

ECHO—AMMUNITION.

Total ammunition required to replenish basic load (in code).

FOXTROT—FUEL.

Total fuel required in gallons by type (in code).

GOLF—EQUIPMENT.

Total vehicles and designated major items short; include all items not immediately available for action (in code).

HOTEL—REMARKS.

Any additional information required to complete the situation/ status picture. Omit if not required.

EXAMPLE

(Battalion Task Force Operations) this is (Charlie Team Commander).

(STATREP) One-Four-Zero-Four-Zero-Zero.

ALFA—(Charlie Team).

BRAVO—(First Platoon) Grid (Mike-Alfa-One-Eight-Two-Five-Six-Eight) to (One-Eight-Seven-Five-Six-Seven)/(Second Platoon) (One-Eight-Seven-Five-Six-Seven)/ to (One-Eight-Niner-Five-Six-Two)/ (Third Platoon) (One-Niner-Zero-Five-Five-Niner) to (One-Niner-Two-Five-Five-Five)/(Command Post)(One-Eight-Four-Five-Six-Niner)/(Observation Post Two)(Two-Zero-Eight-Five-Five-Niner)/ (Radar) (One-Eight-Eight-Five-Six-Three primary sector azimuth One-One-Eight-Zero Miles).

CHARLIE—All elements closed in position One-Four-Zero-Four-Four-Eight receiving sporadic artillery fire.

DELTA—One-Three-One-Eight-Zero-Zero.

DELTA TWO—(ONE).

DELTA FIVE—(ONE).

ECHO—Negative.

FOXTROT—(One-Two-Hundred diesel Five-Hundred Mogas).

GOLF—(One One-Quarter-Ton Truck).

HOTEL—In contact with (Bravo Team) at Contact Point Five-Niner.

(SHELREP) FOLLOWS WAIT.

Minefield Report is submitted by units to indicate:

- intention to lay mines.
- initiation of laying.
- completion of laying.
- enemy mine warfare activity, including coordinates of extremities, depth, enemy weapons and surveillance, coordinates of gaps or lanes, other pertinent information.

Minefields, when established, must be reported on DA Form 1355. This is usually done by battalion task force. Most often, units will establish hasty protective minefields. DA Form 1355-1 is prepared and submitted by the unit emplacing the minefield. For additional information, see FM 5-34.

INTELLIGENCE, COUNTERFIRE, AND NBC REPORTS

Spot Report (SPOTREP) is used to report enemy and area information. It is most often used by company teams, platoons, sections, and squads.

SPOTREP FOR BRIDGE, OVERPASS, CULVERT, OR CAUSEWAY

ALFA—Who is observer or source?*

BRAVO—What? Overall length? Width of roadway? Type and material? Spans (number and length)? Class (compute)? Clearances (overhead and horizontal)?

CHARLIE—Where and when?*

DELTA—Condition? Bypass (add complete report if required)?

ECHO—What are you doing?

EXAMPLE

(Bn TF S3) this is (Co Tm Cdr)

(SPOTREP)

ALFA—(Engineer Reconnaissance Team)

BRAVO—Bridge/One-Eight meters long/Six meters wide/concrete slab/Class Seven-Two/Three Six meter spans/Clearance unlimited.

CHARLIE—Grid (Mike-Alfa-Eight-Six-Six-Niner-Six-Five)/ Time Two-Five-One-Zero-Zero-Zero.

DELTA—Good condition/No bypass within Five-Hundred meters/No enemy.

ECHO—Returning to your location with more information.

OVER.

SPOTREP FOR HIGHWAY, ROAD, TRAIL, OR CROSS-COUNTRY

ALFA—Who is observer or source?*

BRAVO—What? Distance? Width? Surface material? Alignment (bad curves or grades)? Foundation (stable or unstable)?

CHARLIE—Where and when?*

DELTA—Condition (of surface, shoulders, and drainage)?

ECHO—What are you doing?

EXAMPLE

(Bn TF S3) this is (Co Tm Cdr)

(SPOTREP)

ALFA—(Team A)

BRAVO—Road/Five meters wide/concrete surface.

CHARLIE—From Checkpoint One-Niner to Checkpoint Six-One/Time Two-Five-Zero-Niner-Five-Zero.

DELTA—Good condition/suitable for use by (First Brigade)/No enemy contact.

ECHO—Continuing to Checkpoint 30.

OVER.

SPOTREP FOR FORD, FERRY, OR OTHER CROSSING SITE

ALFA—Who is observer or source?*

BRAVO—What? Length of crossing? Width (usable)? Bottom material? Depth of water level (present, maximum, and minimum)? Speed of current? Banks or approaches (material, height, and slope)? Vessels and facilities (capacity, etc.)?

CHARLIE—Where and when?**

DELTA—Condition (of bottom, banks, etc.)? Bypass (add complete report if required)?

ECHO—What are you doing?

EXAMPLE

(Bn TF S2) this is (Co Cdr)

(**SPOTREP**)

ALFA—(Adjacent unit's contact party)

BRAVO—Ford/Six-Five meters long/One-Two meters wide/Rock bottom/One-Half meter deep/Current slow/Approaches Two-Zero percent gravel both sides.

CHARLIE—From Checkpoint Two-Niner down Three-Hundred Right One-Five-Zero/ Time Two-Five-Zero-Six-Zero-Zero.

DELTA—Good condition/No enemy.

ECHO—Continuing mission.

OVER.

SPOTREP FOR ENEMY INFORMATION

ALFA—Who is observer or source?*

BRAVO—What? How many? How equipped?

CHARLIE—Where and when?**

DELTA—Doing what (if moving, direction, speed, and altitude)?

ECHO—What are you doing?

EXAMPLE

(Bn TF S2) this is (Co Tm Cdr).

(**SPOTREP**)

ALFA—(Platoon Leader)

BRAVO—Five aggressors with machineguns.

CHARLIE—Grid Mike-Bravo-Niner-Eight-Five-Five-Niner-One/Time Two-Five-One Seven-Four Two.

DELTA—Dug in/firing.

ECHO—Applying suppressive fires and maneuvering to attack from flank.

OVER.

NOTES: *Source: The actual origin from which information is obtained, such as prisoners of war, local civilians, documents, etc.

**Where: Include from-to for route or trace of area; enemy locations sent in grid coordinates in the clear except behind friendly lines information locating friendly units or activities in code.

Reports of Enemy Shelling, Bombing, or Nuclear, Biological, Chemical Warfare Activity are often used by company teams, platoons, sections, and squads to inform higher headquarters of such activity. These reports are known as **SHELREP**, **BOMREP**, **NBC-1**, respectively.

STANDARD FORMAT

ALFA—From (unit call sign) and type report (**SHELREP**, **BOMREP**, **NBC-1** - (**NUCLEAR**) (**TOXIC**) (**BIOLOGICAL**))

BRAVO—Position of observer (in grid coordinates in code).

CHARLIE—Azimuth of flash (or sound or groove of shell - state which) or origin of flight path of missile).

DELTA—Time from/date-time of attack.

ECHO—Time to (for illumination time).

FOXTROT—Area attached (either azimuth and distance from observer in code or grid coordinates in the clear).

GOLF—Number and nature of guns, mortars, aircraft, or other means of delivery if known.

HOTEL—Nature of fire (barrage, registration, etc.) (or type of burst—air or surface—NUCREP only) or type of toxic agent).

INDIA—Number and type of bombs, shells, rockets, etc.

JULIETT—Time flash-to-Bang in seconds (of weapon).

KILO—Damage (in code) or Crater diameter—NUCREP only.

LIMA—Fireball width (immediately after shock wave passage) NUCREP only.

MIKE—Cloud height (top or bottom—state which) (10 minutes after burst) NUCREP only.

NOVEMBER—Cloud width (10 minutes after burst) NUCREP only.

EXAMPLE

(Bn TF S2) this is (Alfa Tm Cdr)

NBC 1 (NUCLEAR)

ALFA—(Alfa Team)

BRAVO—Vicinity (Mike-Bravo-Two-Niner-Six-Three).

DELTA—Zero-Two-Zero-Four-Five-Zero.

ECHO—Illumination time four seconds.

FOXTROT—Vicinity Mike-Bravo-Two-Zero-Six-Two.

HOTEL—Air burst.

INDIA—One round type unknown small yield.

KILO—(Severe flash blindness throughout area; other damage unknown at this time.)

LIMA—Two-Five-Zero meters estimated.

MIKE—Top Two-Seven-Hundred meters estimated.

NOVEMBER—One-Thousand meters estimated.

OVER.

EXAMPLE

(Bn TF S2) this is (Co Tm)

(SHELREP)

ALFA—(First Platoon)

BRAVO—(Mike-Bravo-Two-One-Six-Eight)

CHARLIE—Magnetic azimuth groove of shells Niner-Six degrees approximate.

DELTA—Zero-Niner-One-Six-Two-Five.

ECHO—One-Six-Four-Five.

FOXTROT—Same as Bravo.

GOLF—Estimate Four One-Five-Two millimeter howitzers.

HOTEL—Harassment.

INDIA—Two-Four rounds high explosive.

KILO—Negligible.

OVER.

NOTE: Omit items not applicable; state units of measure used, such as meters, mils, etc. For additional information, see FM 3-12, 21-40, and 30-5.

Report of Radiation Dose-Rate Measurement is normally reported through command channels using the NBC-4 reports. Radiological monitoring or survey parties report data are collected as expeditiously as possible. Radiological survey data are reported as directed. DA Form 1971-1-4 (Route Technique or Course Leg Technique Ground and Aerial Survey) is used for recording information collected (see FM 3-12).

Patrol Report by reconnaissance elements is normally submitted by SPOTREP as events occur. For debriefings, a report format will assist in insuring all information obtained is reported by the patrol.

ADMINISTRATIVE REPORTS

Administrative reports should be included in a unit tactical SOP. Battalion task force makes up the SOP for use within the battalion task force. Normally, these formats will correspond to brigade formats for ease in compiling. The frequency of these reports is also covered in the SOP. The reports are formatted by line number (ALFA, BRAVO, etc.) similar to SPOTREP or STATREP.

Typical reports are:

- Request for POL Resupply.
- Request for Ammunition Resupply.
- Casualty Report - Should be followed up by DA Form 1156, Casualty Feeder Report; and DA Form 1155, Witness Statement on Individual.
- Standardized Installation and Divisional Personnel Report System (SIDPERS).

PATROL DEBRIEFING REPORT

(Omit Heading(s) Not Applicable)

DESIGNATION OF PATROL

(DATE)

TO:

MAPS:

A. SIZE AND COMPOSITION OF PATROL

B. TASK

C. TIME OF DEPARTURE

D. TIME OF RETURN

E. ROUTES (OUT AND BACK)

F. TERRAIN

(Description of the terrain—dry, swampy, jungle, thickly wooded, high brush, rocky, deepness of ravines and draws; condition of bridges as to type, size and strength, effect on armor and wheeled vehicles.)

G. ENEMY

(Strength, disposition, condition of defenses, equipment, weapons, attitude, morale, exact location, movements and any shift in dispositions.) Time activity was observed; coordinates where activity occurred.

H. ANY MAP CORRECTIONS

I. MISCELLANEOUS INFORMATION

(Including aspects of nuclear, biological, and chemical warfare.)

J. RESULTS OF ENCOUNTERS WITH ENEMY

(Enemy prisoners and dispositions; identification; enemy casualties; captured documents and equipment.)

K. CONDITION OF PATROL, INCLUDING DISPOSITION OF ANY DEAD OR WOUNDED

L. CONCLUSIONS AND RECOMMENDATIONS

(Including to what extent the mission was accomplished and recommendations as to patrol equipment and tactics.)

Signature Grade/Rank Organization/Unit of Patrol Leader

M. ADDITIONAL REMARKS BY DEBRIEFER

N. DISTRIBUTION

APPENDIX D

Breakout From Encirclement

OVERVIEW

BECAUSE OF THE NATURE OF MODERN WAR, a battalion task force may find itself encircled by enemy forces. This should not necessarily be viewed as alarming or critical, especially if it provides the opportunity to attack or counterattack the flanks and rear of enemy units. There will be times when it is necessary for an encircled force to break out and join other forces elsewhere on the battlefield. Once such a decision has been made, the attack should take place as soon as possible to prevent the enemy from concentrating against the task force.

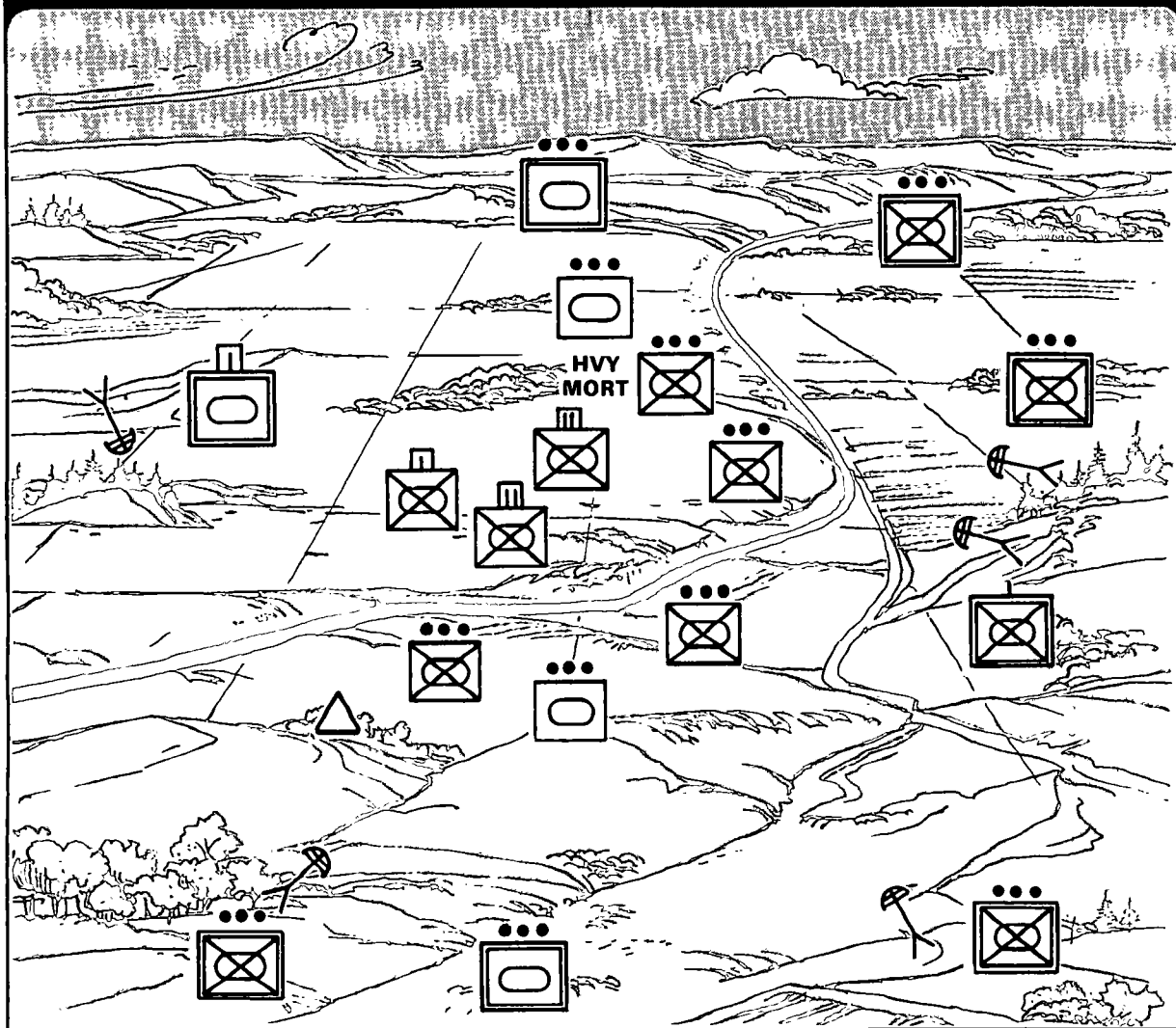
The battalion task force is considered to be encircled when all ground routes of evacuation and reinforcement are cut off by the enemy. This can most often happen when the enemy bypasses the battalion task force or when the task force is cut off as a result of an enemy counterattack. Encirclement does not necessarily mean that the battalion task force is surrounded by enemy forces in

strength; an enemy force may occupy only scattered positions in the battalion task force vicinity. The enemy may not even be aware of the task force's location and may not have detailed information on battalion task force strength and composition. The battalion task force must take advantage of this state of confusion and break out before the enemy realizes what has happened.

CONTENTS

	PAGE
OVERVIEW	D-1
PREPARING FOR BREAKOUT OPERATIONS	D-2
ORGANIZATION FOR BREAKOUT OPERATIONS ..	D-4
CONDUCT OF THE OPERATION	D-5

TASK FORCE ENCIRCLED



PREPARING FOR BREAKOUT OPERATIONS

To be successful in breaking out from encirclement, the battalion task force must:

- Deceive the enemy as to battalion task force composition, strength, and intentions.
- Concentrate sufficient force at an enemy weak point.
- Provide for security to the flanks and rear of the battalion task force as it moves out of the encircled area.

When preparing for a breakout operation, the battalion task force commander follows the troop-leading procedures described in chapter 3, *Preparing for Combat Operation*, keeping the following considerations in mind:

- *Time of the Attack.* Attacking at night or during other conditions of limited visibility is advantageous, but every minute spent encircled increases the enemy's advantage. If waiting for limited visibility conditions risks destruction of the battalion task force, the

attack should be initiated as soon as adequate preparations can be made.

■ *Location of the Attack.* The attack should be conducted against the enemy's weakest point in the direction of other friendly forces. Against scattered resistance, it is best to attack through gaps between enemy units. Covered and concealed routes, troops available, and surprise should also be considered.

■ *Speed of Execution.* The success of breakout operations depends in a large measure on speed of execution. Once the breakthrough is achieved, battalion task force elements must rapidly move out of the encircled area. Therefore, it is important to attack in a direction which will allow link-up with US Army forces in the shortest possible time.

■ *Security.* When preparing for breakout operations, security is maintained by secrecy and deception. Since the task force concentrates the bulk of its forces to break through enemy resistance, the task force rear is most vulnerable. To minimize its vulnerability, a rear guard must be provided.

■ *Evacuation of Wounded.* Wounded soldiers must not be left behind. Wounded soldiers who can fight are given duties consistent with the severity of the wound. Others are moved by the most practical means.

■ *Destruction of Equipment and Supplies.* To prevent capture by the enemy, take as much equipment and supplies as possible out of the encircled area. It may be necessary, however, to abandon some usable equipment and supplies in order to execute breakout operations quickly. Abandoned material is destroyed or otherwise disabled within the capability of the battalion task force. Don't begin destruction too soon, as this may alert the enemy as to battalion task force intentions.

■ *Combat Support.* Plan sufficient suppressive fires to cover battalion task force

ATTACK THE ENEMY'S WEAKEST POINT

movement. The decision to use indirect fires to cover noise of units moving within the encircled area should be carefully weighed against the possibility of alerting enemy forces to the battalion task force's intentions.

ORGANIZATION FOR BREAKOUT OPERATIONS

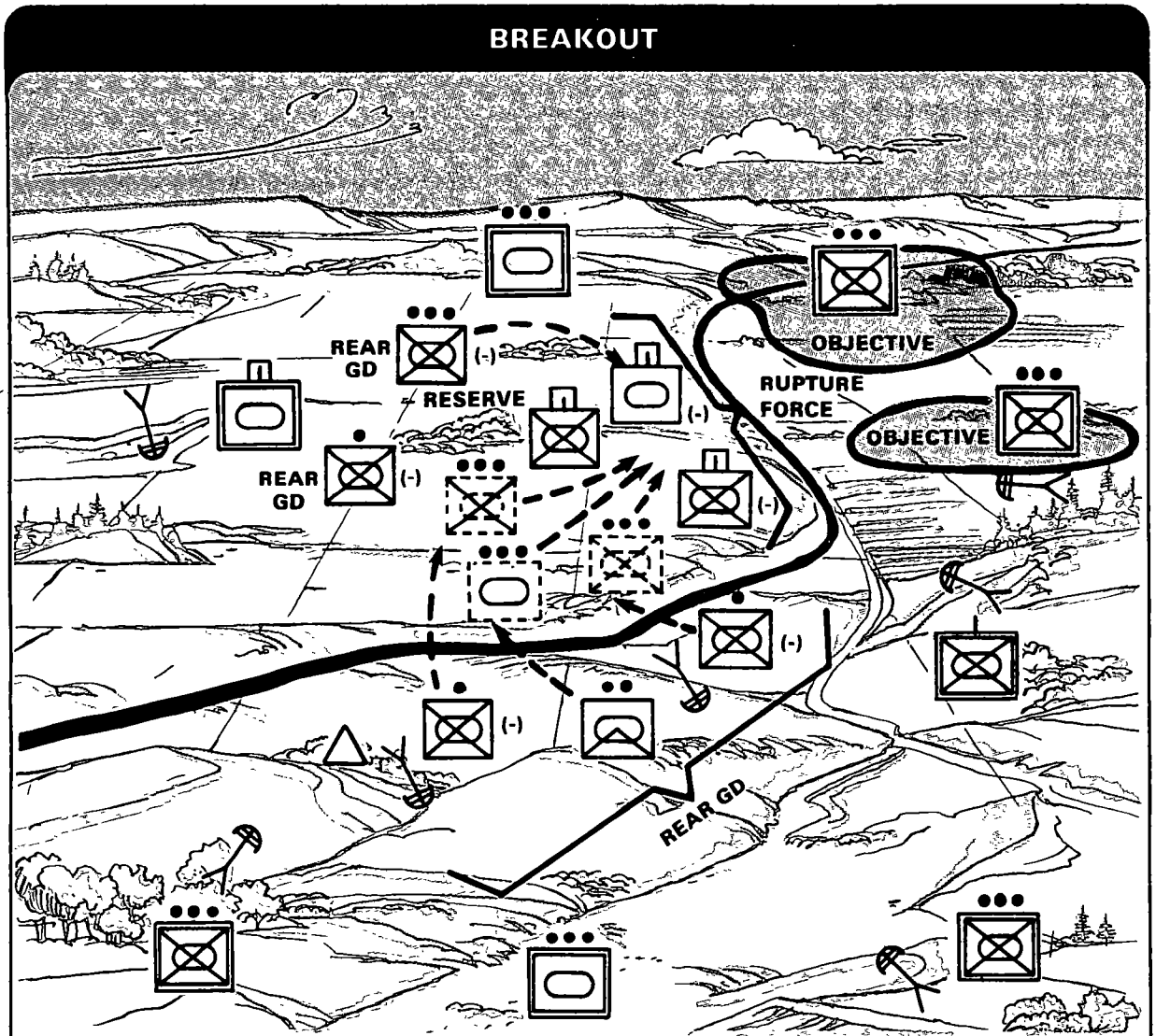
The battalion task force organizes into four primary elements for breakout operations:

**ONCE THE BREAKOUT HAS
STARTED THE MOMENTUM IS
MAINTAINED UNTIL THE
BREAKOUT IS COMPLETED**

1 *A rupture force*—penetrates enemy forces and opens a gap for the remainder of the task force to pass through. Once the rupture force has opened a gap, it holds the shoulders until the main body has passed through, and then joins the rear guard. The size and composition of the force depend on the factors of mission, enemy, troops available, and terrain, as in any other combat operation. The rupture force should receive priority when distributing available troops.

2 *A reserve force*—assists the rupture force or assumes its mission, and then passes through the rupture force, maintaining the momentum of the breakout operation. In determining the composition of the reserve force, the battalion commander must decide how much combat force is needed to make the penetration and how much is required to maintain momentum once the operation has started.

3 *A rear guard*—deceives the enemy as to the location of the main effort and protects the rear of the battalion task force as it moves out of the encircled area. The rear guard consists of the minimum force necessary to simulate activities of task force elements which have repositioned elsewhere. It must be strong enough to delay or disrupt an enemy attack. It normally consists of elements from company teams, the scout platoon, and a squad or two from the battalion task force heavy mortar platoon. It is usually commanded by the battalion task force executive officer. Disabled vehicles still



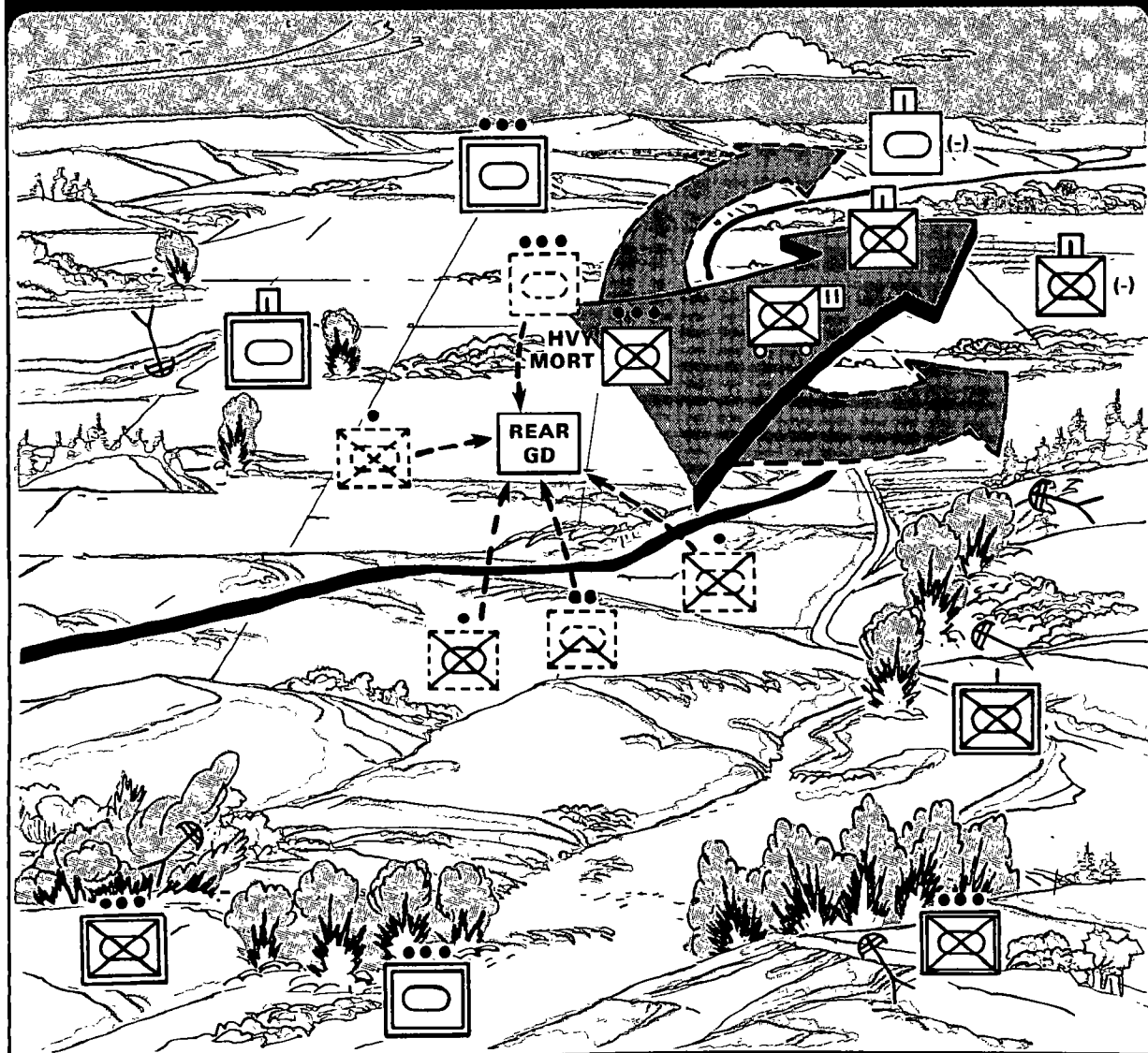
capable of firing can be used to reinforce the rear guard. Once the operation has begun, the rear guard follows combat support and combat service support elements through the penetration and is joined by the rupture force.

4 *Combat support and combat service support elements*—move as a single group, following the reserve force through the gap. Positive command control of this element precludes unnecessary delay in the task force movement.

CONDUCT OF THE OPERATION

Elements participating in the attack as part of the rupture force move over covered and concealed routes to attack positions. The rear guard stays in position to cover movement and deceive the enemy as to their movement. Control measures for the operation are normally limited to objectives on the shoulders for the rupturing force and a route of advance for the remainder of the task force.

BREAKOUT OPERATIONS



Once the attack has started, the rupturing force continues to lead the battalion task force, unless forced to deploy by enemy resistance. If this happens, the rupturing force secures the shoulders of the penetration and the reserve force leads the remainder of the task force rapidly through. The attack must not be permitted to bog down.

As the rear guard clears the penetration, the battalion task force moves on a column axis toward the nearest friendly force. If the distance is great, the task force may deploy as in a movement to contact, primarily so that length will be reduced. Enemy forces along the route should be bypassed. If bypass is not possible, a hasty attack is conducted, as from a movement to contact.

APPENDIX E

Linkup, Passage of Lines, and Relief in Place

OVERVIEW

LINKUP, PASSAGE OF LINES, and relief-in-place operations involve the joining of one unit with another for a limited period of time. Preparation for these operations and their execution are similar.

LINKUP OPERATIONS

A linkup operation may be conducted when:

- Two US Army forces advancing on separate axes encircle an enemy force; for example, in a double envelopment.
- A US Army force attacks to join another US Army force which has been inserted in the enemy rear area; for example, an air assault force.
- An encircled force breaks out from encirclement and joins another US Army force.
- A US Army force attacks through an enemy force to relieve an encircled US Army force.

CONTENTS

	PAGE
OVERVIEW	E-1
LINKUP OPERATIONS	E-1
PREPARATION FOR LINKUP OPERATIONS	E-2
PASSAGE OF LINES	E-2
RELIEF IN PLACE	E-4

PREPARATION FOR LINKUP OPERATIONS

Planners must consider what will happen when linkup is completed. Possible options are:

- The linked up forces continue the attack together.
- The linkup forces may simply reinforce the circled or stationary force until both are ordered to attack or, indeed, until both are relieved by a larger force.

The headquarters ordering a linkup operation normally specifies the:

- Command relationships between the joining forces.
- The time and/or location of linkup.

Sometimes, both time and location of linkup will be specified. Frequently, time may be critical, in which case location can be adjusted. Sometimes location is vital, as in an encirclement operation.

Regardless of the circumstances, the free and frequent exchange of information between both organizations is central to all linkup operations.

Control measures are designated by the responsible headquarters, the most important being:

- Linkup points where the joining forces are expected to make initial physical contact.
- Restrictive fire line (RFL) to prevent joining units from firing at one another. (For further information about use of RFL, refer to chapter 7, *Combat Support*.)
- Checkpoints, passage points, phase lines, etc., used to control the operation.

When possible, communications-electronics operating instructions (CEOI) and liaison officers must be exchanged

between the two forces. A common radio frequency is also vital, as are recognition signals which may be visual or audio.

Linkup between two moving units is one of the most difficult linkup operations. As joining units move closer to one another, the need for positive control to avoid firing on one another must be linked to insuring the enemy doesn't escape between the two forces. Common sense dictates that leading elements of each force should be on a common radio net, if possible.

PASSAGE OF LINES

The battalion task force may frequently pass through the fighting positions of other units in order to attack or to reposition itself for defense. Passage of lines can involve either forward or rearward movement. During passage of lines, both units are temporarily concentrated in a small area, and therefore are vulnerable to enemy action. The normal confusion is increased by having two units in an area where only one was before. If it is a forward passage, task force commanders should try to arrange for company team commanders and their platoon leaders to reconnoiter the area of passage. In a rearward move, the battalion task force executive officer and company team executive officers may reconnoiter the area of passage.

Some control measures and other information which must be exchanged between the two units are listed below:

- Disposition of stationary force, to include obstacles.
- Contact points.
- Passage lanes.
- Attack positions or assembly areas for a forward passage.

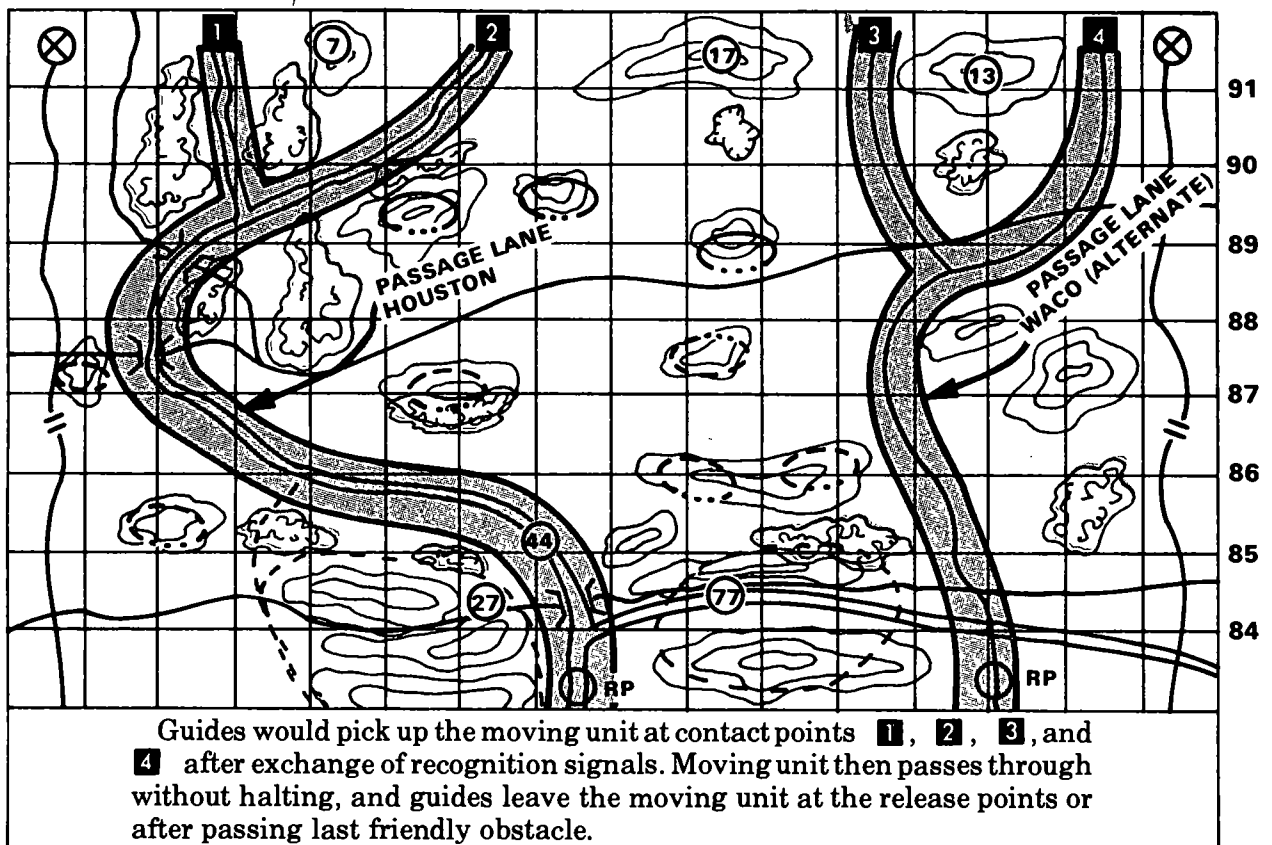
- Location of combat support and combat service support elements.
- Enemy positions (for a forward passage).

■ *Time when responsibility is transferred.* This may be a predetermined time, but more logically is kept flexible and worked out between the two task force commanders concerned.

- Traffic control.
- Fire support.
- Communications.

■ *Combat Service Support.* During passage, the stationary force should help the passing force with casualty and vehicle evacuation, fuel, and ammunition resupply.

Once a passage of lines starts, it's desirable to finish it as quickly as possible, but avoid haste which breeds confusion. If it's a rearward passage, it's important that the stationary force assume control of the battle early. Here, the stationary force must have freedom to maneuver. Chapter 5, Defense, describes how to do this. In a forward passage, the moving force must assume control of the battle as quickly as possible after its lead elements have passed through the stationary force. In this case, it is most important that the moving force has freedom to maneuver. The following scenario shows a part of a battalion task force passing through another unit's position during a **rearward** passage of lines. This scenario shows multiple passage lanes which are normal; however, task forces may be required to pass through a single lane due to either terrain restrictions or barriers.



RELIEF IN PLACE

In a relief operation, one unit assumes the mission or responsibility for enemy contact from another. Incoming commanders reconnoiter their areas of operation as they would for any defensive operation. Each company team prepares to occupy positions of an outgoing company team. Once responsibility has changed, the incoming battalion task force commander adjusts unit dispositions as necessary. Incoming and outgoing commanders coordinate:

- Locations of weapons.
- Exchange of range cards and fire plans.
- Locations of obstacles.
- Transfer of responsibility for minefields.
- Routes into and out of positions and guides for each vehicle.
- Turnover of excess ammunition, wire lines, POL, and other material to incoming unit.
- Communication.
- Enemy situation and intelligence.
- Sequence of relief.
- Time and circumstances of change of responsibility for the area.

Liaison officers are exchanged. The outgoing unit should leave one man with each incoming platoon until it is established in position and thoroughly familiar with the area.

Fire support plans are exchanged and relief of organic fire support elements is planned.

Normally, the outgoing unit provides fire support until responsibility for the area passes. Organic fire support elements of incoming units initially take up positions and fire plans of outgoing elements.

Relief in place should be conducted during a period of limited visibility, if possible. The incoming unit moves to an assembly area behind the outgoing unit using covered and concealed routes. Communications between the outgoing and incoming units are by messenger or wire. Although the incoming unit monitors radio nets (fire direction and command) of the outgoing unit, it remains on listening silence.

Once the operation begins, normal activities of the outgoing unit are continued; for example, radio traffic is maintained at the same level, and patrols are conducted as before. Although it may be necessary to camouflage noise level of moving vehicles with field artillery or mortar fire, care must be taken to do this without abruptly increasing density of fires.

The incoming unit command group and TOC collocates with the outgoing unit command group and TOC. Vehicles carrying sections or squads infiltrate into position on covered and concealed routes; or crews, sections, and squads may infiltrate on foot to take over the equipment of the outgoing unit. As one element replaces the other, the outgoing unit exfiltrates by crew, section, or squad.

APPENDIX F

MILITARY OPERATIONS IN BUILT-UP AREAS (MOBA)

OVERVIEW

MANY AREAS OF THE WORLD, especially Western Europe, have experienced a massive growth in built-up areas and man-made changes to the natural landscape. These changes significantly affect potential future battlefields. Avoidance of built-up areas is no longer possible. Rather, military operations in built-up areas are an integral part of combat operations and present special opportunities and challenges to the battalion task force commander. MOBA pertain to defending or attacking through an area that is interspersed by many small villages and towns, some larger towns, and major urban complexes.

Characteristics of Urban Combat. There are four different categories of built-up areas. Each presents different problems and opportunities to tactical commanders.

■ Small villages (population of 1,000 or less).

▣ Strip areas, generally interconnecting built-up areas between villages and towns along roads and valleys.

▢ Towns and small cities (population up to 100,000 and not a part of a major urban complex).

⬜ Large cities with associated urban sprawl (population up to millions, covering 100 or more square miles).

CONTENTS

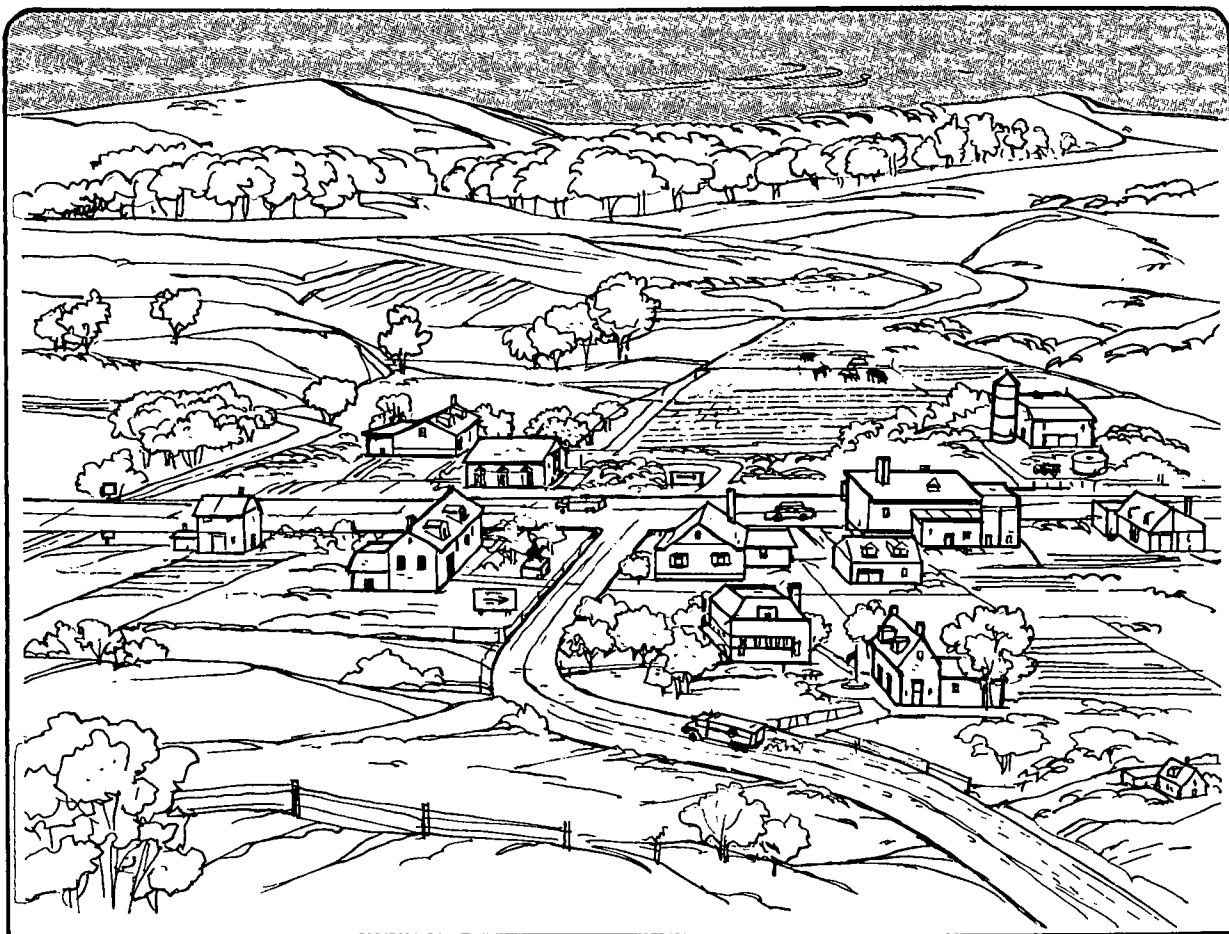
	PAGE
OVERVIEW	F-1
USE OF BATTALION TASK FORCE ELEMENTS	F-1
NONORGANIC COMBAT SUPPORT	F-1
COMMUNICATIONS	F-1
COMBAT SERVICE SUPPORT IN BUILT-UP AREAS	F-1

At the task force level, small villages and strip areas will be the most common. The towns and small city will impact on the operations of brigades and divisions. Large cities or major urban complexes will require operations at division or corps level. The battalion task force can normally expect to operate in the latter two only as part of a larger force.

The defender has the advantage in the use of built-up areas. He has superior protection, readily available, as well as concealment and covered routes of movement within the area. The attacker can isolate and bypass some built-up areas, but will be required to attack others. He is then faced with fighting from the outside into a well-defended position.

Both attacking and defending forces will take advantage of the cover and concealment offered by built-up areas to locate command posts, stocks of supplies, and combat service support units.

Fighting in Built-Up Areas. The whole subject of combat in built-up areas is one in which the US Army is not well versed. Our doctrine has centered on techniques of combat in cities or in house-to-house fighting, and the placement of weapons in the defense. These techniques remain important and will be updated in FM 90-10. The principles of conducting operations in continuous and contiguous built-up areas, however, are new and must be tested.



FIRING AT WEAPONS FROM BUILDINGS/INCLOSED AREAS

(Firers must wear helmets and ear plugs.)

	Min Size Frame Structure	Min Size Masonry	Min Vent Size*
LAW	7' x 10'	Min 4' to Back Wall	20 Ft ²
DRAGON	15' x 15'	17' x 11'	20 Ft ²
TOW	20' x 30'		20 Ft ²

*Open door and window space.

Villages. The typical village, especially in Europe, is characterized by stone, brick, or concrete stores, houses, and barns in a cluster with a number of more modern and more lightly constructed houses on the outskirts. Villages provide ready-made cover for platoons and company teams and, in some cases, even the task force. They can be readily developed into strongpoints through the application of obstacles, carefully sited weapon systems, preplanned fires, and improved field of fire.

Defense. Villages provide formidable battle positions when occupied by well-trained troops with modern antitank weapons. The defender is provided strong cover and good concealment. Thick walls protect from direct suppressive fires, and positions on first floors and basements protect from some of the effects of indirect fires. Antitank guided missiles can be employed from within buildings if sufficient space exists, and armored vehicles can be concealed within barns or large buildings.

Villages are often spaced 2,000-4,000 meters apart. ATGM and tanks of the task force may be able to cover the open ground between

villages and provide mutual support to other villages. Thus, battle positions within a group of adjacent villages could provide a system of prefabricated and mutually supporting positions within the task force battle area. Enemy armored forces may be able to bypass one or two villages, but would probably take high losses from tanks and ATGM in attempting to bypass the group of villages. Thus, enemy units will be forced to develop a combined arms attack against a village or group of villages. Such attacks are costly to the enemy in time and casualties. If the task force is fighting outnumbered, the commander may choose to use villages as battle positions from which to attrit the enemy, moving to new positions before the enemy mounts a deliberate combined arms attack to close on the positions. Movement from these battle positions can be covered from supporting battle positions or nearby favorable terrain.

When considering a village as a possible strongpoint, the commander must insure that it cannot be bypassed. Strongpoints are fortified to the extent time and available materials allow. The task force commander

must allocate the necessary engineer support to the company team directed to create the strongpoint. APCs are located with or near the infantry to support by fire and move forces as the battle develops. When tanks are used, they provide direct fire support, stop penetrations, and counterattack to destroy enemy forces attempting to isolate or encircle the area. Obstacles are placed on avenues of approach to slow movement of enemy vehicles into the built-up area. Combat support elements may be attached or placed in direct support of battalion task force elements. Indirect fire can be planned very close to friendly positions due to the excellent cover afforded by buildings.

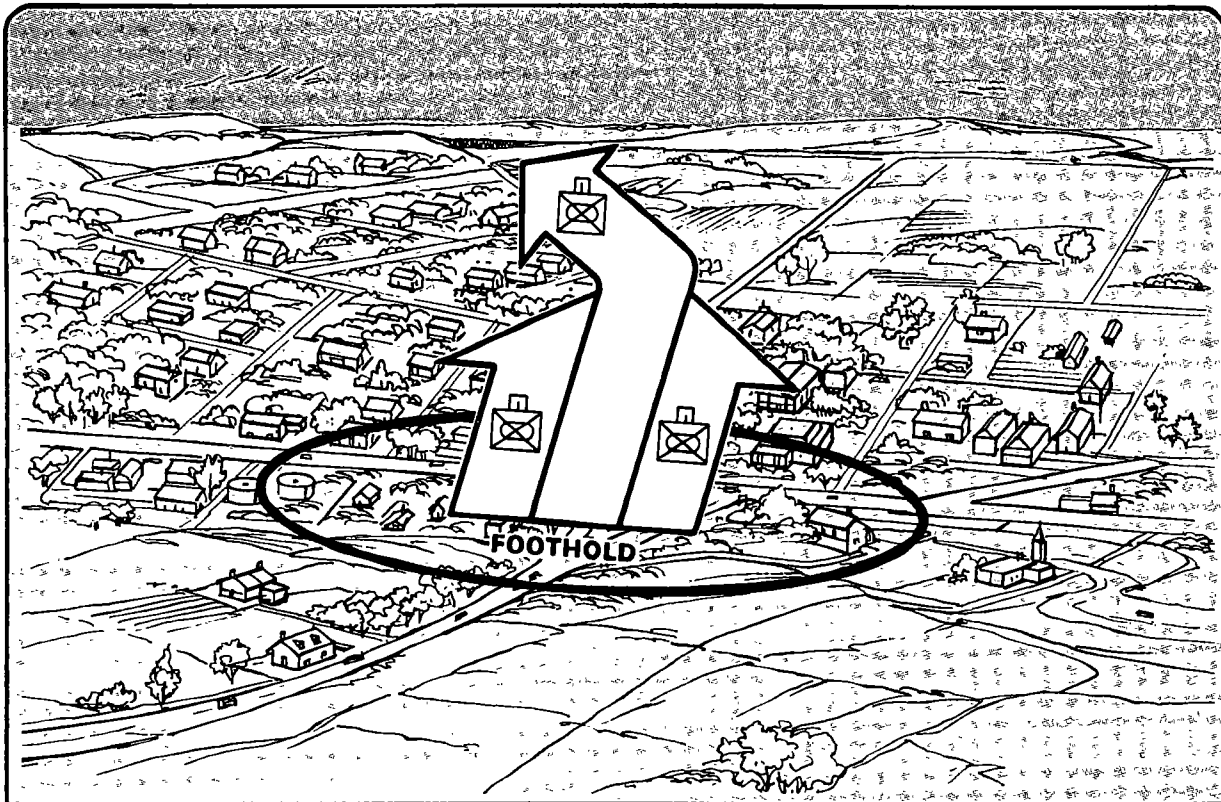
Once an enemy force gains a foothold in a built-up area, he can only be dislodged at extensive cost to the defender. Therefore, enemy within a penetration must be attacked immediately by whatever forces are available and destroyed, or forced to withdraw before

he can consolidate or reinforce his gains.

Offense. In keeping with the cardinal principle of the offense—that is, attack where the enemy is weak—defended village strongpoints should not be attacked if they can be suppressed or bypassed. However, within the active defense, or in the offense, it may be necessary to eliminate resistance from a defended village which blocks a supply route or is inflicting losses on bypassing forces. The attacking force must bring overwhelming force to bear on the strongpoint and supporting enemy positions.

Isolate the enemy by securing dominant terrain around the built-up area to restrict the enemy's ability to resupply or reinforce. The size force required depends on the availability of dominant terrain and observation. If the mission is only to contain the enemy in the built-up area, this may be the only phase of the attack.





Secure a **foothold** in the edge of the built-up area, covered and concealed from enemy observation and fire. The foothold area is normally one or two blocks in size, assigned as an intermediate objective and isolated by smoke and indirect fire prior to the attack. The approach of the attacking force to the village must be covered by smoke. When the area is secure, additional forces then move into the area and prepare to continue the attack. This phase is necessary each time the battalion task force moves into a more densely built-up portion of the area to a business district.

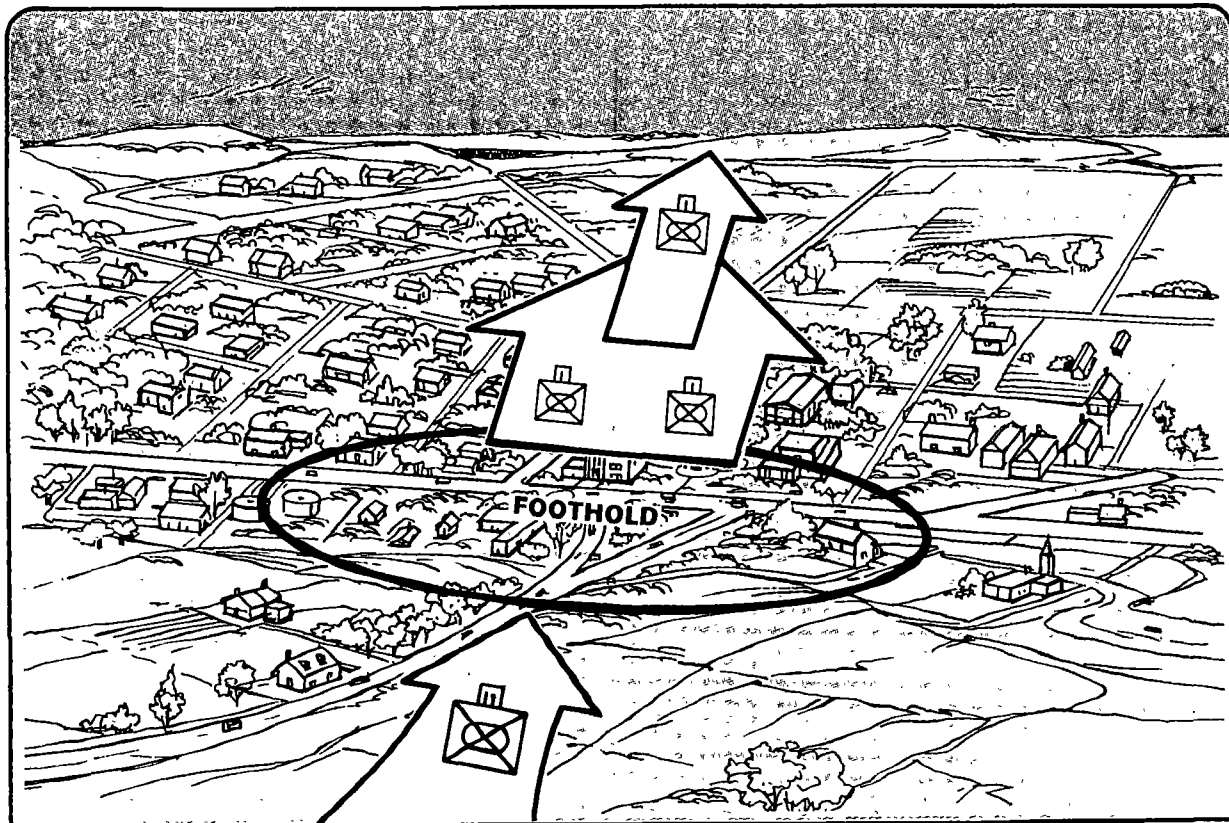
Once a foothold has been gained, the battalion task force **continues the attack** to clear all of its assigned portion of the built-up area. Identified or suspected targets should be destroyed by direct fire in order to drive the defender back into the village. Artillery fires, with delayed fusing, should be used until all or most of the buildings have been

penetrated. There are two techniques used to clear a built-up area, again depending on the factors of the mission, enemy, troops available, and terrain.

A rapid advance may be used when an installation, building, or other terrain feature critical to the battalion task force mission must be secured.

A company team against light resistance attacks toward the critical objective. It advances as rapidly as possible to secure the objective, destroying only enough enemy to maintain its advance. The remainder of the battalion task force follows and clears the zone. The battalion task force may operate with no reserve or with a small reserve.

Against strong resistance, or if a critical area has not been identified, a slower advance is preferred. A main attack is made by a company team on a narrow front against an enemy weak point or through a lightly

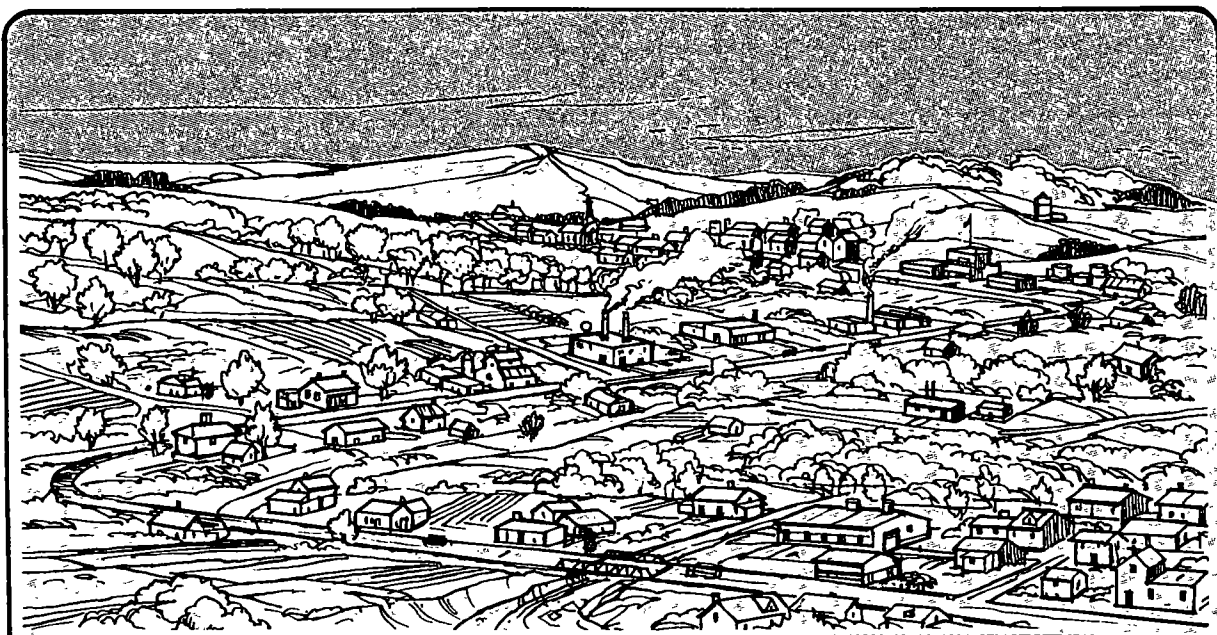


**EACH ATTACK TEAM SHOULD
KNOW THE BOUNDARIES OF
THEIR SECTOR BEFORE THE
ATTACK BEGINS**

built-up area; for example, an area where buildings are not concentrated or are of wooden construction. Remaining company teams move along the flanks of the main attack and advance more slowly than the main attack. Either team can enter the corridor cleared by the main attack to attack the flanks of a strong enemy force.

Width of zone may vary with density of buildings. In suburbs, each company team may cover several blocks. In a city of large, heavily constructed buildings, each company team should be assigned no more than one block in width. Boundaries should be placed along the sides of streets. A company team making the main attack should have a zone of action which includes one block in width *and* the streets on either side.

Strip Development. Where houses, stores, and factories have grown up along roads or down valleys between towns and villages, they can present an approximation of a

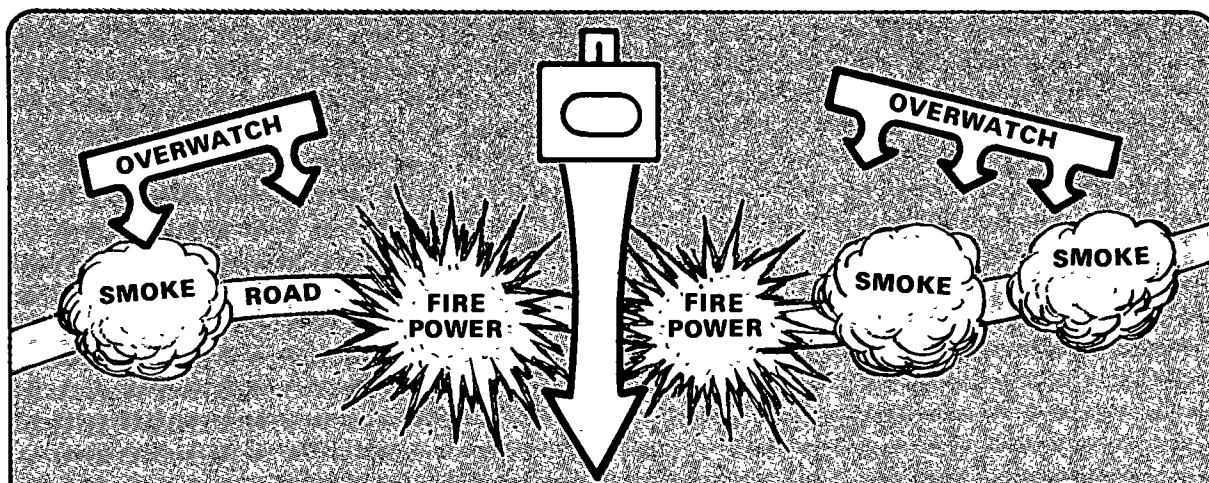


fortified line. These areas provide the same advantages to the defender as those discussed for villages.

Defense. A battalion task force may not be able to occupy the entire strip and associated villages and towns—certainly not if outnumbered. However, if visibility is good and if sufficient fields of fire are available, the task force can occupy positions within the strip and deceive the enemy into thinking it is

an extensive defense line. Tanks and ATGM can inflict high losses on attacking enemy armor and slow his momentum. Strips afford covered avenues of withdrawal to the flanks.

Offense. Defended strip developments must not be permitted to slow the mobility of the attacking task force. They are not easily bypassed and therefore weak points should be isolated through suppression and obscuration. Heavy concentration of direct and indirect fire should support a penetration



through the strip by fast-moving armor forces.

If the enemy force does not withdraw after the penetration, suppression and obscuration of the flanks must continue for the task force to pass through. Eventually these areas must be reduced by follow-on forces.

USE OF BATTALION TASK FORCE ELEMENTS

The *scout platoon* may be used to screen an exposed flank, provide rear area security by patrolling previously cleared areas, establish observation posts, act as a portion of the isolating force, or serve as messengers.

The long-range fires of the *antitank platoon* of a mechanized infantry battalion can be used to isolate the built-up area or support while a foothold is being secured. Suitable firing positions and fields of fire will generally be restricted within a built-up area. Streets and open areas can be effectively covered by antitank weapons in either attack or defense.

The *heavy mortar platoon* is used in a built-up area as in any other operation. However, observed fire may be restricted by buildings, and firing positions not masked by buildings may be hard to find. Mortar fire can be used to suppress targets located on rooftops.

The *Redeye* section provides protection from air attack as for any other operation. When employed within the built-up area, rooftops may offer the best firing positions. Heavy machineguns placed on rooftops provide additional air defense.

The *ground surveillance radar* section can be positioned to monitor routes into and out of the built-up area. Inside the built-up area, radars are positioned to detect movement along streets, alleys, and other open areas, especially at night and other periods of limited visibility.

NONORGANIC COMBAT SUPPORT

Field Artillery units initially support the attack with suppressive fires as in any other operation. High-angle fire is used. The decision to use preparatory fire is made by the division or corps commander after determining the political impact and the effect that rubble and burning buildings will have on movement. Inside the built-up area, artillery may, in some cases, be employed by section in the direct fire role to destroy buildings housing enemy strongpoints.

Engineers create and breach obstacles and barriers, assist task force elements with explosives, clear away rubble, maintain routes for combat vehicles, and breach walls to permit movement through buildings. Combat engineer vehicles (CEV) can be used to destroy buildings or to create rubble to impede enemy attacks.

When *assault helicopters* can be used in an attack, units can be inserted on rooftops and then, clear down through buildings. Isolation units can be positioned quickly and, during the clearance phase, reinforcements can be rapidly shifted using cover of previously cleared buildings. Parking lots, playgrounds, and parks may also be used as landing zones.

Tactical air reconnaissance missions can provide detailed intelligence on enemy dispositions and capabilities. Air photos are very useful, especially if recent maps are not available. Close air support can provide the ground commander with selective and discriminating fire support. In addition to general purpose bombs, cluster bomb units, rockets, and guns, the Air Force has several guided bombs and missiles especially suited for engaging hard point targets. An airborne FAC will normally control strike aircraft. He has the advantage of being able to acquire targets more easily than could a ground FAC, ground commander, or artillery FO.

COMMUNICATIONS

FM radio communications will be degraded by buildings, wire, and messengers; and radio relays must be used during the fight. Wire should be routed through buildings and sewers to avoid disruption or breaking by artillery. It may be possible to use commercial telephone lines. FM relays and HF/SSB radios can help overcome line-of-sight obstacles. Manual relays and auxiliary antennas (e.g., RC 292) can be placed on strategic rooftops.

COMBAT SERVICE SUPPORT IN BUILT-UP AREAS

Fuel consumption is less than that consumed in operations outside built-up areas in either offense or defense.

Ammunition expenditure is increased due to the intensity of fighting. The inability of vehicles to move through the area due to rubble may require manpacking ammunition. Demolitions, grenades, mines, LAWs, and small arms ammunition are high-use items.

Water sources may be destroyed or contaminated. Water sources outside the built-up area should be provided for. Defenders must prestock water.

Evacuation of wounded may be difficult due to closeness of the enemy and when encircled. It may be necessary to provide additional medical personnel and supplies to a defending force.

Fire fighting equipment must be available.

Security from sabotage, guerrilla warfare, and intelligence gathering by a hostile population must be provided. Even friendly civilians may steal supplies. Civilians are evacuated whenever possible. Population control is normally provided by attached or supporting military police and civil affairs units. Friendly civilian volunteers may be used to construct barriers, but cannot be allowed to fight.



APPENDIX G

Operations in Active Nuclear, Biological, or Chemical Conditions

OVERVIEW

THE PRIMARY PURPOSE of using nuclear, biological, and chemical (NBC) weapons is the same as for any other weapon—to produce casualties, destroy or disable equipment, and generally disrupt operations. Chemical and biological agents and nuclear weapons may be employed separately or in combination and, when used, normally supplement conventional weapons.

NUCLEAR BATTLE

No treaty or international agreement prohibits the use of nuclear weapons in warfare. If an enemy has nuclear weapons, the battalion task force must be prepared to operate in a nuclear environment. The enemy might employ nuclear weapons from the start, or he might attack in a conventional manner and use them later.

The battalion task force will fight on the nuclear battlefield essentially the same as on the conventional battlefield. However, combat service support and communications will be disrupted more than on the

conventional battlefield, and the battalion task force and company teams may be isolated for extended periods. Forces will be concentrated only when absolutely necessary to avoid creating a lucrative nuclear target. For the same reason, greater dispersion may be required among battalion task forces and company teams. Tactics used on the conventional battlefield—cover and concealment, overwatch, and suppression—are especially suitable to the nuclear battlefield. However, characteristics of nuclear weapons, their effects on equipment and personnel, and protective measures to be taken by the task force during operations in active nuclear conditions must be considered.

CONTENTS

	PAGE
OVERVIEW	G-1
NUCLEAR BATTLE	G-1
NUCLEAR WEAPONS EFFECTS	G-2
PROTECTIVE MEASURES IN NUCLEAR WARFARE	G-4
PROTECTIVE MEASURES FOR DISMOUNTED PERSONNEL	G-5
OPERATIONS IN ACTIVE CHEMICAL OR BIOLOGICAL CONDITIONS	G-6
CHARACTERISTICS OF CHEMICAL AND BIOLOGICAL AGENTS	G-6
DETECTION	G-6

First, however, it is necessary to describe what to expect from the enemy during nuclear operations. Threat forces with nuclear weapons plan for their employment in both offensive and defensive operations as the basis of all fire planning. Nuclear attacks are combined and coordinated with conventional fires and air attacks, and are exploited rapidly by ground forces. Nuclear weapons may also be employed with chemical agents.

In the attack, Threat tactics will be similar to those employed on the conventional battlefield. The enemy will attempt to overwhelm the defense with the weight and speed of his attack, both day and night. The attack will be on a broad front, with formations moving on independent axes, accepting the risk of open flanks. To minimize this danger, the enemy will use

nuclear weapons to neutralize terrain dominating his axes of advance.

To avoid presenting worthwhile nuclear targets, the enemy will disperse his forces, concentrating for short periods of time only when necessary. He may close with the defender to either destroy him or to inhibit the defender's use of nuclear weapons because of the hazard to the defender's forces. Primary nuclear targets for attacking Threat forces are command control systems, logistics systems, nuclear delivery means, and large concentrations of troops.

In the defense, Threat forces will fight on the nuclear battlefield as on the conventional battlefield. The only difference is that defending Threat forces will be more widely dispersed. Primary nuclear targets for defending Threat forces are the same as when they are attacking.

NUCLEAR WEAPONS EFFECTS

Nuclear detonation effects present new phenomena and increased destructiveness on the battlefield when compared to conventional firepower. Blast effect is vastly increased and, in the smaller yields, radiation has the most significant effect on troops whether they are in the open, in armored vehicles, or in foxholes.

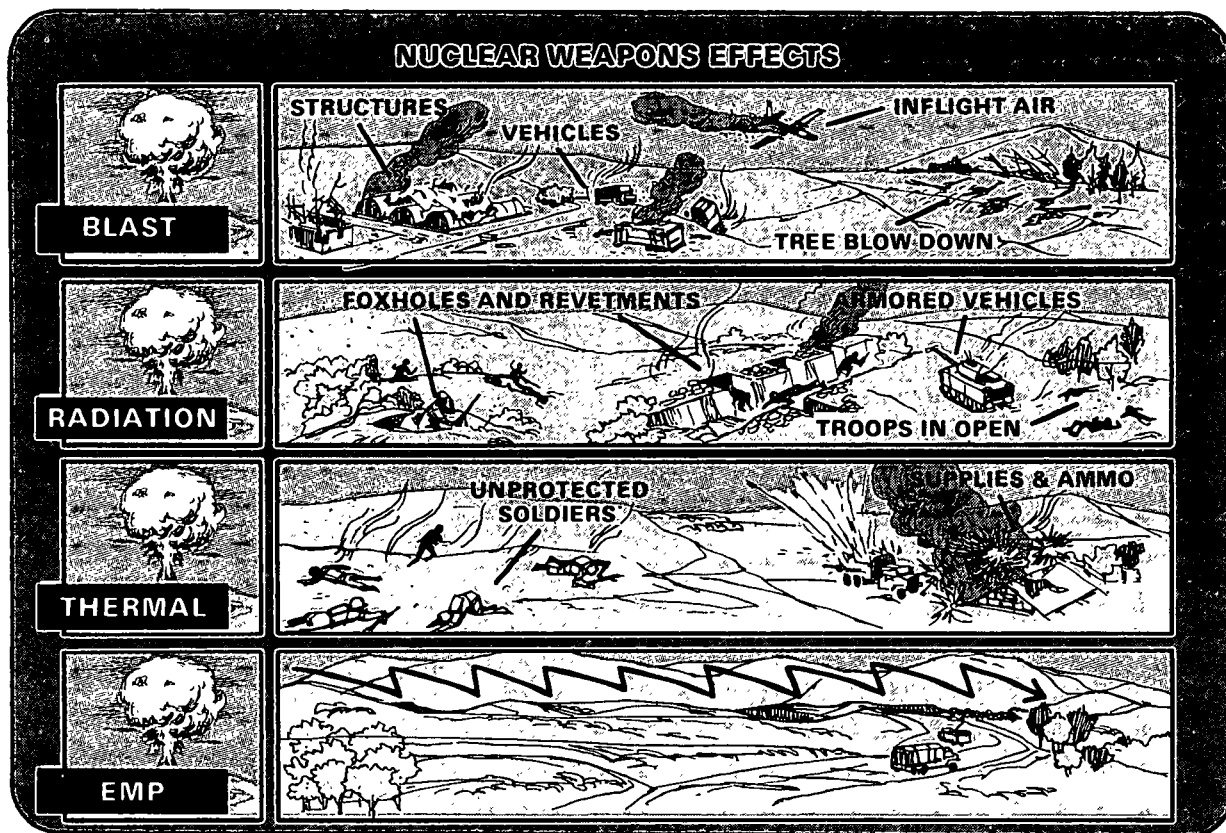
Thermal radiation is an added danger to unprotected soldiers. The electromagnetic pulse (EMP) which emanates from a nuclear burst can damage radios and other electronic equipment, seriously interfering with command and control communications and target acquisition systems such as the task force ground surveillance radar (GSR).

Fallout can also produce casualties, delay movements, and deny terrain if the task force is unprepared to detect residual radiation and take protective measures from its effects.

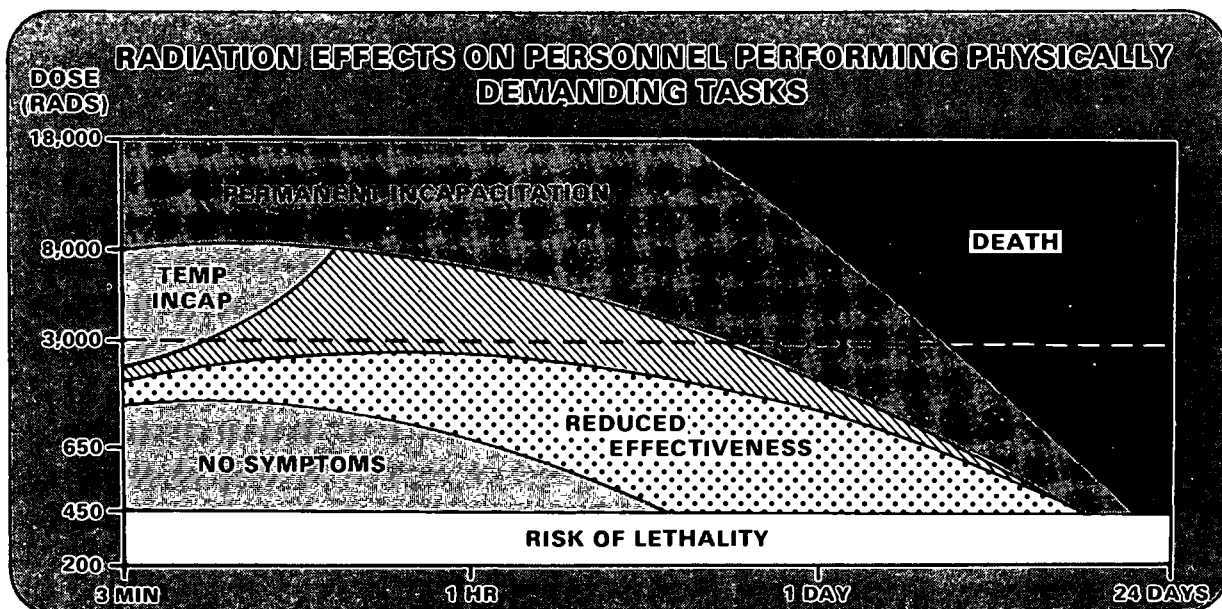
For the yields of most interest on the battlefield (subkilotons to tens of kilotons), radiation is the main killer.

The immediate incapacitation radiation level is 8,000-18,000 rads (unit of measure for radiation), but an active soldier suddenly exposed to 3,000 rads will become incapacitated within 3-5 minutes. He may recover to some degree in about 45 minutes, but due to vomiting, diarrhea, and other radiation sickness symptoms, he would be only partially effective until he dies within a week. A soldier exposed to 650 rads initially shows no symptoms, but loses some of his effectiveness in about 2 hours and can be expected to die within a few weeks under battlefield conditions. Exposure in the 100-rad region usually has little effect if there has been no prior radiation exposure.

In addition to the immediate effects of nuclear weapons, the task force commander must also be concerned with residual radiation from fallout and induced radiation. When a nuclear weapon detonates too near the surface of the earth, dust and debris which are sucked up into the air fall to the



ground and create areas of lethal radiation. Similar results could occur when the cloud from a nuclear burst, even at a fallout safe height (about 50 meters for a 1KT), passes through rain which then carries radioactive particles to the earth. Radiological monitoring is essential to detect areas contaminated by induced radiation or by fallout.



PROTECTIVE MEASURES IN NUCLEAR WARFARE

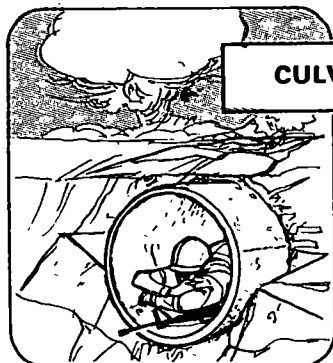
The nuclear weapon, although a tremendously destructive military device, is not one against which there is no defense. The more each soldier knows about nuclear weapons capabilities, the more effective he will be on the nuclear battlefield and the greater will be his chances for survival. Training must stress the interrelated importance of discipline, camouflage, cover, concealment, dispersion, and immediate reaction for battlefield survival. A tank provides protection roughly equivalent to that provided by an uncovered foxhole. Tank crews may have to operate on the nuclear battlefield with hatches closed. APCs provide protection generally the same as that of the tank.

RADIATION MAY ONLY BE DETECTED BY RADIAC INSTRUMENTS

Hazard from fallout may last for days and cover many square miles. Since nuclear radiation cannot be detected by the physical senses, radiac instruments are provided to the battalion task force for the purpose of measuring radiation. Radiological monitoring is included in all reconnaissance and intelligence activities according to procedures established by higher levels of command. After residual radiation has been detected, the battalion task force continues its mission and, if possible, relocates to minimize radiation exposure.

If it is necessary to remain in the fallout area, armored vehicles button up completely with the crews remaining inside. A tank provides protection roughly equivalent to that provided by a 4-foot-deep foxhole with overhead cover. Shelters must have overhead cover. The period of time a unit may remain in a contaminated area depends on intensity of radiation and protection available. Time spent away from cover must be minimized.

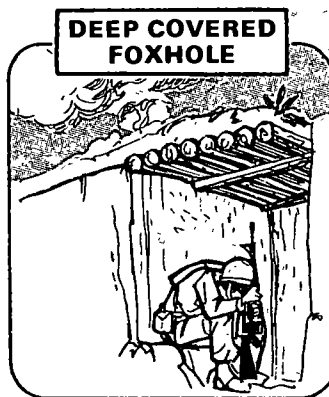
Once fallout has stopped, radioactive dust on top of shelters and vehicles must be brushed away. This will serve as emergency decontaminating; however, complete decontamination must be accomplished as soon as possible.



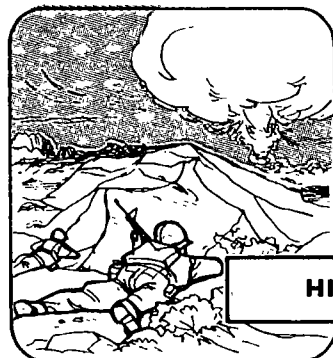
CULVERT



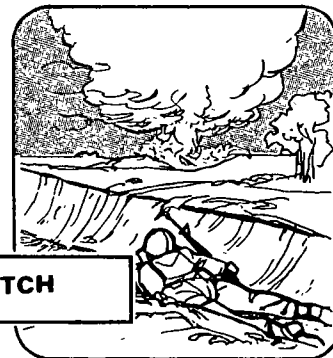
**DEEP OPEN
FOXHOLE**



**DEEP COVERED
FOXHOLE**



HILL



DITCH

PROTECTIVE MEASURES FOR DISMOUNTED PERSONNEL

The measures illustrated above provide protection against the initial effects of nuclear weapons, to include blast, heat, and nuclear radiation. Deep, covered foxholes or deeply buried culverts offer the best protection against fallout.

Operations on a nuclear battlefield require that individual protective measures be performed without detailed direction. Unit SOPs must include action taken during both friendly and enemy employment of nuclear weapons.

ENEMY STRIKE

- Carry no unnecessary items.
- Secure equipment and ammunition.
- Take advantage of natural shielding.

SOP

FRIENDLY STRIKE

- Orient your vehicle to face ground zero.
- Tie down antenna.
- Close and lock hatches.
- Traverse turret to rear and lock turret traversing mechanism.

OPERATIONS IN ACTIVE CHEMICAL OR BIOLOGICAL CONDITIONS

It is the policy of the United States not to use toxic chemical weapons first. However, they may be used if an enemy employs them against the United States. The United States will not use biological weapons under any circumstances. Threat forces have both chemical and biological weapons and are prepared to use them, so the battalion task force may have to fight in active chemical and biological conditions. These weapons may be used separately, simultaneously, or with nuclear weapons.

CHARACTERISTICS OF CHEMICAL AND BIOLOGICAL AGENTS

Chemical agents are similar to poisonous pesticides, but are far more powerful compounds meant to kill or damage man. They are released to cover relatively large areas. They may be placed on a target as a gas, as finely divided liquid or solid particles (aerosols), or as liquid droplets. A mixture of agents can be used to cause confusion and increase casualties. Artillery, mortars, rockets, missiles, aircraft spray, bombs, and landmines can deliver the agents.

Biological agents are disease-producing micro-organisms (germs). The intentional use of micro-organisms creates a disease hazard where none exists naturally. These biological agents may be dispersed as aerosols by generators, explosives, bomblets, missiles, and aircraft. Harmful micro-organisms may also be spread by the release of living insects, such as flies, mosquitos, fleas, and tics.

Effects on Personnel. Chemical and biological agents may enter the body through the eyes, nose, mouth, or skin. They can produce incapacitation or death.

Liquid agents may be dispersed on equipment, terrain, and foliage. The agent may remain for hours or days, presenting a serious hazard to unprotected personnel.

Effects on Equipment. Chemical and biological agents have little direct effect on

equipment. Liquid chemical agent contamination on equipment can restrict its use until appropriate decontamination is accomplished.

Emergency decontamination of vehicles and equipment is done by crew members (see TM 3-220, Chemical, Biological and Radiological **(CBR) Decontamination**).

Effects on Terrain. Liquid chemical agents may restrict use of terrain and buildings.

Decontamination of terrain is beyond the capabilities of the battalion task force. Contaminated areas may either be bypassed, or crossed when individual protective equipment is worn.

Soldiers and equipment must be decontaminated after a mission in a contaminated area.

DETECTION

Chemical agents can be detected by using a chemical agent alarm, detection paper, or crayon (see FM 21-40). Soldiers cannot rely on odors to detect chemical agents because some are odorless.

Biological agents are usually difficult to detect during early stages of use. Information on enemy use of biological agents is most often disseminated by higher headquarters. Soldiers should be alert to any indication that biological agents are being used. Unusual occurrence of diseases must be promptly reported to brigade and division.

PROTECTIVE MEASURES IN CHEMICAL AND BIOLOGICAL WARFARE

The battalion task force must train to apply protective measures against toxic, chemical, and biological attack. Standing operating procedures must provide for a warning system; use of individual and unit-protective equipment; procedures for prompt decontamination of individuals, equipment, and supplies; and prompt treatment of casualties.

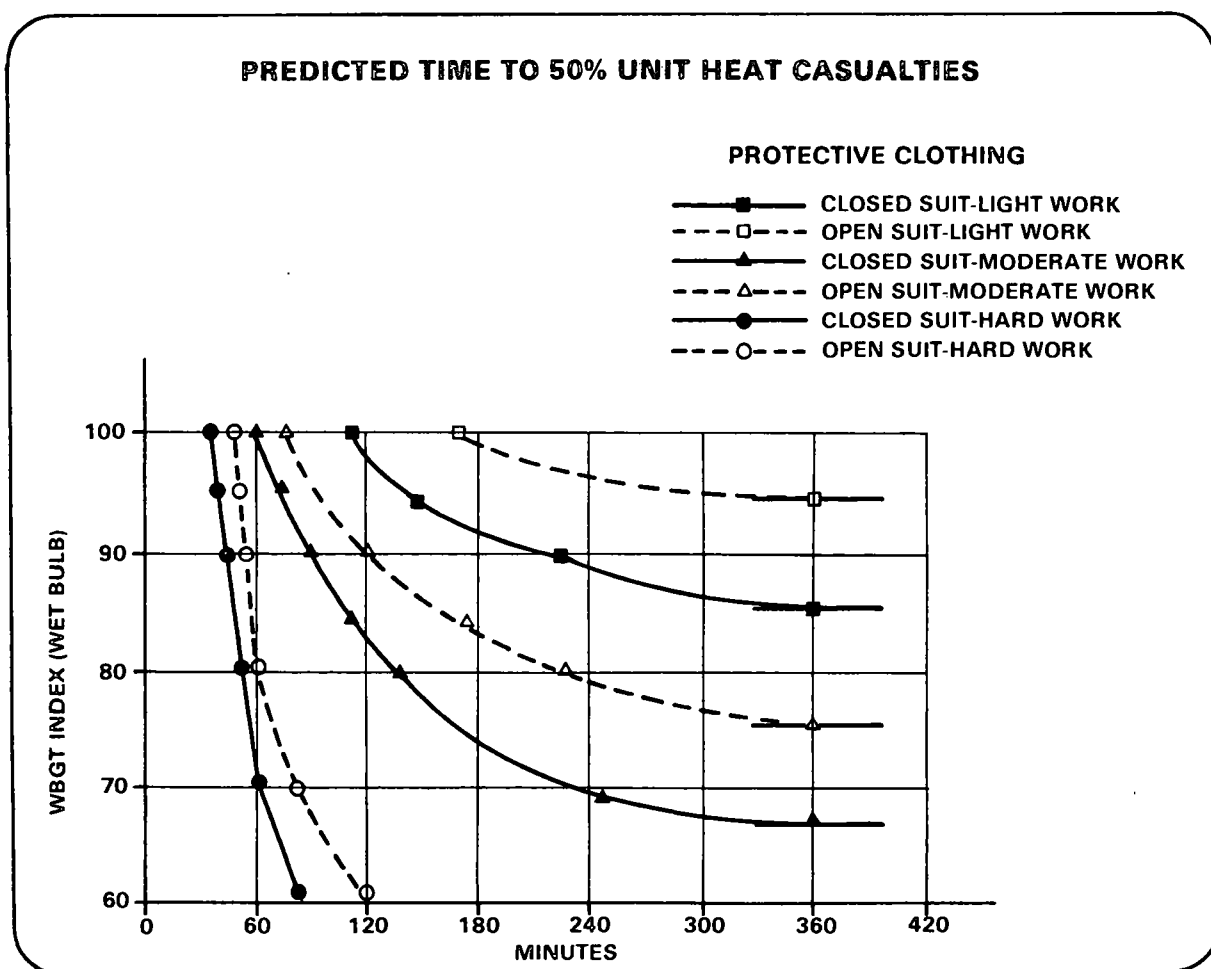
A soldier's primary protection against TOXIC, CHEMICAL, AND BIOLOGICAL attack is his protective MASK.

To be protected against LIQUID CHEMICAL AGENTS, soldiers must wear chemical PROTECTIVE CLOTHING as well as MASKS. Complete individual protection is provided by wearing the mask with hood, protective overgarments, protective socks with chemical-resistant boots, and protective gloves.

Unless the task force is well trained and conditioned in NBC protective operations, the loss of operational effectiveness associated with wearing protective clothing due to heat stress, respiratory strain,

psychological stress, reduced mobility, visual acuity, and manual dexterity will have an adverse effect on mission accomplishment. Soldiers wearing chemical protective equipment have a limited tolerance time for hard work and must be allowed to attend to body functions. Therefore, the dual vulnerability of forces to both the effects of the chemical agent and the stresses from the protective equipment can result in an unacceptable degradation of combat effectiveness and attrition of the force.

This chart depicts the degradation of performance the task force commander can expect when his troops are forced to wear protective clothing:



**IMMUNIZATION PROGRAMS
AND GOOD FIELD SANITATION
PRACTICES ARE A CONTINUOUS
CONCERN TO THE COMMANDER**

Chemical protective clothing and equipment provide protection from biological attack also. There are two additional aspects of biological defense with which the task force commander must be continuously concerned. The first is an aggressively enforced immunization program. Such a program provides immunity to a wide variety of potential biological warfare agents, but it must be enforced prior to an attack to be effective. The second aspect is a rigorous adherence to good field sanitation practices. This type of program is effective both before and after attack in reducing losses to disease.

Once chemical agents have been employed or while the threat of chemical attack exists, the battalion task force commander determines the level of protection required. This decision, called mission-oriented protective posture (MOPP), is based on the chemical threat, mission, work rate, and temperature. Whenever possible, the commander specifies the degree of protection before the mission. He may subsequently direct that the protection be modified, according to his continuing estimate of the situation. Subordinate commands down to squad leader level may also need to modify the MOPP based upon existing conditions and the particular work rate of their personnel.

Training in NBC defense must be integrated into unit training programs. Training objectives must be to develop and evaluate the readiness of forces to operate in an NBC environment and to insure proficiency with all available offensive and protective materiel. Emphasis must be placed on performing all operational missions while using NBC detection, warning, and protective equipment. Toward this end, agent stimulants should be used whenever possible to provide realism.

APPENDIX H

Road Marches and Assembly Areas

OVERVIEW

A COMBAT UNIT MOVING TO CONTACT MOVES along the terrain. Techniques of traveling, traveling overwatch, and bounding overwatch are described in this manual and in FM 71-1, *The Tank and Mechanized Infantry Company Team*. At times, a unit not in contact may have to move long distances to position itself for future combat operations, or from garrison to a distant training area.

These movements, called road marches, differ from a march to contact in that —

- The purpose is relocation, not enemy contact.
- It is conducted at a prescribed rate of speed.
- A prescribed interval is maintained between vehicles.
- Primary consideration is the rapid movement of units.

CONTENTS

	PAGE
OVERVIEW	H-1
PLANNING	H-2
TRAINING	H-2
STANDING OPERATING PROCEDURES	H-2
PREPARING FOR ROAD MARCHES	H-3
MARCH COLUMNS	H-4
ASSEMBLY AREAS	H-8
ROAD MARCH PLANNING FACTORS	H-9
APPLICATION OF MOVEMENT FORMULAS	H-10
MOVEMENT ORDERS	H-14
ROAD MOVEMENT GRAPH	H-16
ROAD MOVEMENT TABLE	H-16

The information in this appendix is sufficiently detailed to plan a road march in wartime or peacetime. The degree of planning necessary prior to the operation depends on:

- Mission:** How far must the task force move? How soon must it arrive at its destination? What is it to do when it gets there? Is it moving as a part of a larger force? What is the likelihood of enemy ground contact?
- Enemy:** What is the likelihood of enemy air attack?
- Terrain:** What routes are available: Are they primary or secondary roads?
- Time Available:** A road march should be planned in as much detail as time permits to provide for efficient movement and to minimize the possibility of vehicles becoming lost. In peacetime, it may be possible to plan road marches in great detail; however, in wartime, time and mission may not allow detailed planning.

PLANNING

Road march planning consists of three steps which may be done concurrently: Determining requirements for the move; analyzing organic and nonorganic movement

capabilities; and establishing unit movement priorities. The following factors are considered in movement planning:

- Organization of units and their equipment.
- Assembly of units and transportation means.
- Loading personnel and equipment.
- Control, coordination, and combat service support for the movement and at the destination.
- Assembly of units and equipment at destination.
- Security measures before and during movement, and at destination.
- Enemy situation, geographic conditions, and weather.

TRAINING

The success or failure of a mission could very well depend upon the ability of units to move rapidly and efficiently over great distances. Training is necessary to test and check unit loading plans, to develop and improve standing operating procedures (SOP), to prevent wasted time and effort, and to maintain operational efficiency. The battalion task force should integrate road marching and occupation of assembly areas into other types of training whenever possible.

STANDING OPERATING PROCEDURES

The battalion task force should develop an SOP for road marches and occupation of assembly areas. Some of the routine items that may be included in the SOP are loading plans; composition of serials and march units; control measures; rates of march under various conditions; formations; communications; security measures; time intervals and distances; location of the command post

during the march; timing and duration of halts; tasks during halts; organization of quartering and reconnaissance parties; and reporting instructions.

Like vehicles should have the same stowage plan for equipment and ammunition. This prevents confusion during combat when personnel must move from one vehicle to another and during recovery operations. Sectors for each vehicular-mounted weapon should be prescribed throughout the column. Orders for a particular movement may modify or amplify the SOP to fit the requirements of a particular situation.

PREPARING FOR ROAD MARCHES

The basic considerations in planning any road march are: The mission and situation; what is to be moved (troops and equipment); and the type, number, and characteristics of vehicles available for the move.

March Planning Sequence. When preparing for a tactical road march, use the following sequence of march planning if time permits:

- Prepare and issue the warning order (issued orally at company team level and below) as early as possible to allow units maximum time for preparation.
- Prepare an estimate of the situation; select route and organization of march column.
- Organize and dispatch reconnaissance and quartering parties (should follow SOP).
- Prepare detailed movement plans:
 - Organize the march.
 - Review reconnaissance information.
 - Compute march data.
 - Prepare a movement table.
- Prepare and issue the march order (issued orally at company team and below).

Route Reconnaissance. Route reconnaissance determines travel times, capacities of underpasses and bridges, locations of culverts, ferries and fords; and identifies critical points and obstacles. Prior location of critical points can prevent congestion and assist security measures.

A route reconnaissance may be conducted to confirm and supplement data obtained from map studies, higher headquarters, and air reconnaissance. The detail of reconnaissance is often closely related to speed of movement.

Instructions to the route reconnaissance party, usually the scout platoon, should state what information is required, and when and where the report is to be submitted.

Quartering Party (Advance Party). A quartering or advance party should precede the main body whenever possible. It is normally composed of an officer-in-charge, a security element if the tactical situation requires, communications and medical personnel, plus necessary staff section and subordinate representatives. Its mission is to reconnoiter the new area, make necessary improvements to entrances and routes in the area, and guide march elements to and into the new area. It may also perform route reconnaissance when time is critical. The commander of the quartering party must be told the route, order of march, and estimated time of arrival of the main body. A battalion task force quartering party is usually led by the S1 and consists of the quartering parties from each subordinate company and, as a security element, the battalion scout platoon.

It is preferred that the same soldiers be used regularly on quartering party assignments and be trained in mine detection and removal. The quartering party should have sufficient guides and markers, and necessary pioneer tools to improve the new area. As march elements clear the release point,

quartering party members guide them to selected or designated areas without halt.

MARCH COLUMNS

A tactical march may be conducted in close column, open column, or by infiltration. March techniques may vary depending on the situation. In dusty conditions, for example, vehicles must march at least "dust distance" from one another for drivers to see.

Close Column. Vehicles are spaced approximately 25 meters apart during daylight. At night, vehicles are spaced so that the driver can see two lights in the blackout marker of the vehicle ahead.

Close column is normally used for marches during darkness, under blackout driving conditions. This method of marching takes maximum advantage of the traffic capacity of the routes, but provides little dispersion.

Vehicle density is approximately 30 vehicles per kilometer along the route of march.

Open Column. Distance between vehicles is increased to provide greater dispersion and varies from 50 to 100 meters, or greater if the situation requires.

Open column is normally used during daylight. It may also be used at night using infrared lights, blackout lights, or when passive night vision equipment is available.

Normal vehicle density is approximately 15 vehicles per kilometer when vehicles are 50 meters apart; 12 vehicles per kilometer when the distance is 75 meters; and 10 vehicles per kilometer when the distance is increased to 100 meters. In choosing interval or density, the planner must realize the effect on column length and the time it will require to move. In close column, a mechanized infantry heavy task force is 6 km long. In 100-meter open column, it is 18 km long.

Infiltration. Vehicles are dispatched individually, in small groups, or at irregular

intervals at a rate that will keep the traffic density down and prevent undue massing of vehicles. Often the advance party will infiltrate.

Infiltration provides the best possible passive defense against enemy observation and attack. It is suited for tactical marches when sufficient time and road space are available and when maximum security, deception, and dispersion are desired.

March Organization. A march column includes all elements using the same route for a single movement under control of a single commander. A battalion task force may march over multiple routes to reduce closing time. A large column may be composed of a number of subdivisions, each under the control of a subordinate commander. March columns, regardless of size, are composed of three elements: a head, a main body, and a trail element. March columns are organized to maintain unit integrity and to maintain a task organization consistent with mission requirements.

The **head** is the first vehicle of the column and sets the pace.

The major elements of the column—serials and march units—are the **main body**.

A **serial** is a major subdivision of a march column, organized as a single unit under one commander for purposes of planning, regulation, and control. A battalion task force usually forms into a serial.

A **march unit** is a subdivision of a serial and is normally a squad, section, platoon, or company. It moves and halts under control of a single commander using voice and visual signals. Radio is used only when no other means of communication can be used.

The **trail party** follows the march column and includes personnel and equipment necessary for emergency vehicle repair and recovery, medical aid and evacuation, and unscheduled refueling.

March Column Control. Column control is maintained through the chain of command. The commander has no prescribed place in the column. He positions himself where he can best control the operation. Commanders of serials and march units are responsible for controlling their elements, each using his staff or representatives to assist as he may direct. Ground vehicles, aircraft, route-marking guides, and military police may be used to assist in control and coordination of the march.

Each unit marching as part of a larger element maintains liaison with the preceding unit. When appropriate, a liaison officer travels with the preceding unit, keeps his commander informed of that unit's location, and provides him early warning of any unscheduled halt and the reason, as soon as it is determined.

Start Point (SP). An SP provides all units of a march column a common point for starting their movement. When units use more than one route, each route has a start point. The SP is a place along the route of march that is easily recognizable on the ground, such as a road intersection. An SP should not be in a defile, on a hill, or at a sharp curve in the road. It should be far enough from assembly areas to allow units to be organized and moving at the prescribed rate when it is reached. No element of a march column should be required to march to the rear or through another unit in order to reach it. Prior to starting a march, each major unit of a serial reconnoiters its route to the SP and determines and announces the times for major units of the serial to arrive at and clear the serial start point.

Release Point (RP). An RP provides all units of the march column a common point for reverting to control of their parent unit. The RP should be on the route of march and easily recognizable on the map and on the ground. Guides meet units as they arrive at

the RP and lead them to the new areas. Multiple routes and cross-country movement from the RP to assembly areas enable units to disperse rapidly. In selecting an RP, hills, defiles, and sharp curves should be avoided. No unit should be required to countermarch or pass through another unit to reach its new position.

Critical Points. Critical points on a route are those used for reference in providing instructions, places where interference with movement might occur, or places where timing might be critical. The route reconnaissance report or a map study should permit the march planner to designate critical points along the route of march and distances from one critical point to another. Once identified, action must be taken to insure uninterrupted movement through each. Road guides and signs may be sufficient. The commander may want to be present at some critical points to control the movement.

Restrictions. Restrictions are points along the route of march, such as bridges, intersections, ferries, or bypasses, where movement may be limited or obstructed during specified periods of time. The march planner should start the move early enough to pass before the restriction begins, delay the start of the move to pass the restriction after it has ended, or plan to halt the column along the route until the restriction is over.

Communications. Messengers are the primary means of communication during road marches. Visual signals are also used. Because the enemy has good radio direction finding equipment, radio is used only in emergencies and when no other means of communication can be used. Road guides can also be used to pass messages from one march unit to a following march unit. Because of the need to stay off the radio, road guides are very important in controlling the speed of march units and the interval between them.

Traffic Control. Traffic control is normally provided by the headquarters controlling the march. Military police traffic control posts may be located at critical points along the route to provide orientation and to minimize delay caused by other columns, civilian or refugee traffic, congested areas, or difficult terrain. Movements on multiple routes during periods of poor visibility and the existence of major intersections, defiles, and detours along routes increase traffic control problems.

Road guides may be used to augment and support the military police effort. Road guides should be posted in pairs, one to direct traffic while the other provides security. Their equipment should provide for identification during hours of darkness. Guides are normally posted by an advance party of the moving unit.

Speed Control. Elements in a column of any length may simultaneously encounter many different types of routes and obstacles, resulting in different parts of the column moving at different speeds at the same time. This can produce an undesirable accordion-like action or whip effect. The movement order gives march speed, rate of march, and maximum catch-up speed for safety and to reduce "column whipping."

To control whipping, the leading vehicle must not exceed the authorized maximum speed of the slowest vehicle in the column, especially after negotiating an obstacle. To minimize vehicle congestion on the near side of an obstacle, vehicle commanders and drivers must be alert and maintain the prescribed minimum distance, each vehicle making gradual speed changes. Intervals must also be maintained between march units. A two-minute interval between march units is fairly standard.

Halts. Halts are made for rest; personal comfort and relief; messing; refueling; maintenance and inspection of equipment; allowing other traffic to pass; and for making adjustments in schedules. The time and duration of halts are usually established in the movement order or prescribed in the unit SOP.

Short halts for rest are usually taken for 15 minutes after the first hour of marching and for 10 minutes every 2 hours thereafter. The prescribed rate of march includes the time required for short halts. When possible, march elements using the same route stop at the same time. Route characteristics may make it necessary for the halt to occur in one particular part of the route rather than simultaneously at a fixed time.

Long halts are planned in advance, requiring that additional time be specifically allocated and added to the total travel time. Locations for long halts are normally selected to allow all vehicles to clear the road and permit proper dispersion.

Unit SOPs should prescribe actions to be taken during halts. Vehicular crews perform during-operation maintenance services at scheduled halts. Whenever unscheduled halts occur, vehicle commanders must make contact with the vehicle to their front, and movement commanders must take appropriate action to determine and eliminate the cause of the halt.

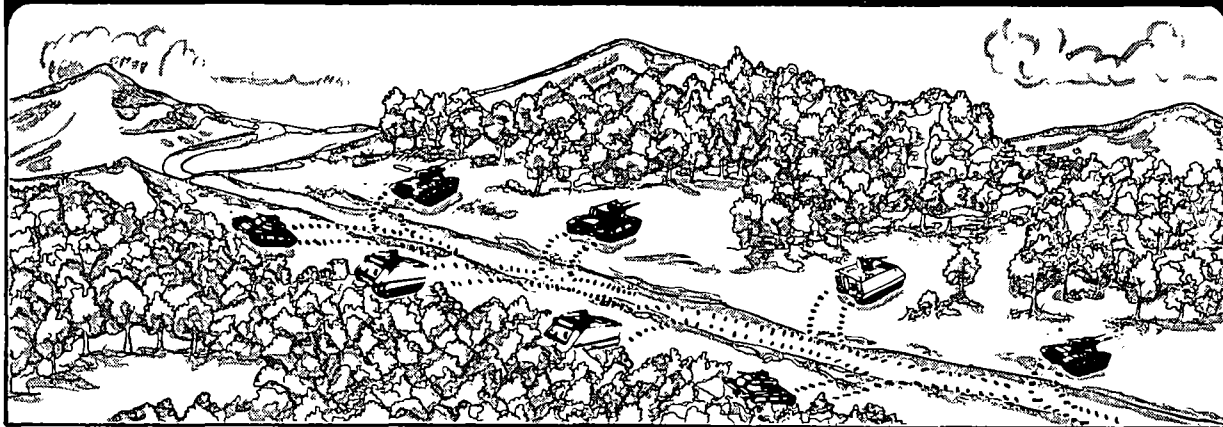
Halts for refueling should be scheduled in *advance*, enabling march unit commanders to make definite plans for refueling.

It may be desirable to clear the route of march temporarily to shorten the column. When terrain permits, units do this by coiling up on each side of the route. A coil is a circle

with weapons oriented outward. If sufficient area is not available or condition of the

terrain precludes coiling, a HERRINGBONE is formed.

FORMING A HERRINGBONE

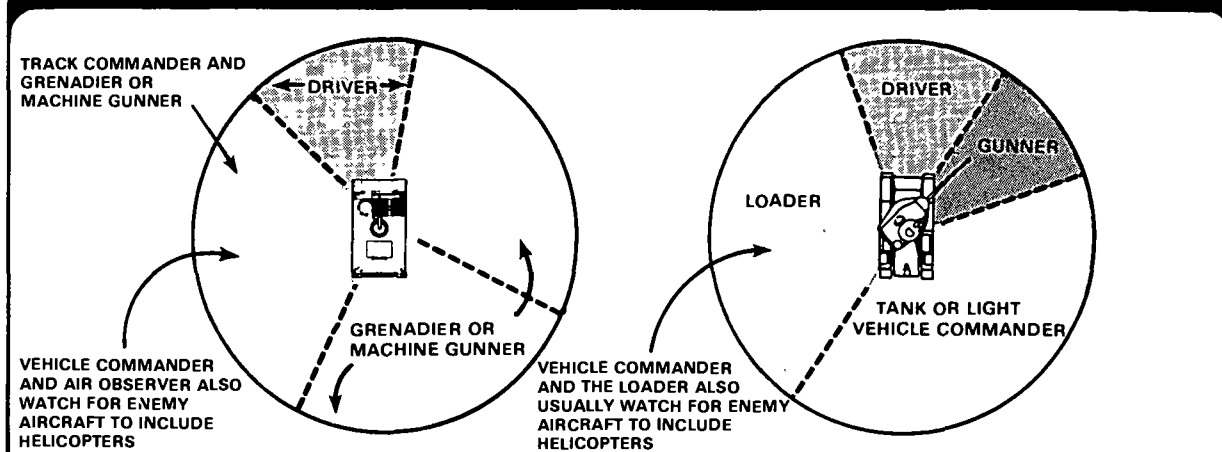


The first priority at a halt is to establish local security. Observation posts (OP) are established and sectors of fire are assigned to each platoon, section, and squad.

Disabled Vehicles. Disabled vehicles must not obstruct traffic. They are moved off the road and their status reported immediately. The crew establishes security

and posts guides to direct traffic. If the crew repairs the vehicle, it rejoins the rear of the column. Vehicles that have dropped out of the column for any reason should return to their positions only when the column has halted. Until then, they march at the rear, just ahead of the trail element. If the crew cannot repair the vehicle, it is recovered by the trail party.

SECTOR OF OBSERVATION



Security. Vehicle commanders assign *sectors of observation* to their personnel so that there is 360-degree observation around their vehicle. Each vehicle commander designates an *air guard* to provide

air security. Specific vehicles may be designated as air guard vehicles, and the entire crew orients only on air observation rather than air and ground observation.

ASSEMBLY AREAS

An assembly area is a location where a unit gathers to prepare for future operations. Here, the unit reviews and issues orders, services and repairs vehicles, receives and issues supplies, and feeds troops. The assembly area, when used to prepare for an attack, is usually well forward. If possible, it should be out of range of enemy light artillery.

Characteristics. Overhead concealment is important if the unit is to remain in the area for any length of time. Vehicles, equipment, entrances, and exits should be camouflaged to keep the enemy from detecting the location of the unit. Consideration should be given to:

- Cover from direct fire.
- Good drainage and a surface that will support vehicles.
- Good exits and entrances, and adequate internal roads or trails.
- Space for dispersion of vehicles, personnel, and equipment.
- A suitable landing site nearby for organic, attached, or supporting helicopters.

Actions in Assembly Areas. Before the main body leaves the rear assembly area, the march commander sends a quartering party to the forward assembly area. During this movement, the quartering party provides its own security. A quartering party, on arriving in the forward assembly area—

Reconnoiters the area. If the area is unsatisfactory (poor drainage, no concealment, poor routes), the quartering party leader contacts his commander and asks for permission to find another area.

Organizes the area. The quartering party leader selects locations for subordinate units, command post, and trains, as appropriate. When selecting locations, the quartering party leader considers each unit's

position in the march column. If a subordinate quartering party leader determines from his reconnaissance that his unit's area is unsatisfactory, he immediately notifies the senior quartering party leader and requests a change. If a change cannot be made in the time available, the unit is located under the best available cover and concealment as soon as it arrives, and adjustments are made later.

- **Improves and marks entrances, exits, and internal routes (within its capabilities)**
- **Marks or removes obstacles and mines.**
- **Marks vehicle locations.** Each platoon quartering party member marks the general area for mutually supporting vehicle positions. The exact positions are selected by vehicle commanders on arrival.

Performs guide duties. Each platoon is guided from its RP into its sector of the assembly area by its quartering party member.

Upon arrival of a unit at an assembly area, all elements move off the road and clear the route of march without slowing or halting. Posting of guides, selection of routes, and allocation of areas by the quartering party are done with this objective in mind. The march route must not be blocked while precise adjustments are made. After a march serial has cleared the route, adjustments of vehicles can be made without holding up traffic.

Observation posts cover key terrain features and likely avenues of approach. Although an assembly area is not a defensive position, a unit must be ready to see and defeat enemy attacks. Local security is established as vehicles are positioned. Vehicle commanders and platoon leaders coordinate overlapping observation and fires. Crews prepare weapon range cards.

Crews and squads camouflage each vehicle and position to prevent detection from ground and air. Protective mines, when authorized, may be placed to provide close-in protection and warning of enemy approach.

Primary means of communication are by messenger and by wire. Only essential wire lines will be laid, usually to each company team, to provide adequate command control. Visual signals may be used if feasible. Radio is only used in an emergency when no other means of communication can be used. Each company team provides a messenger to the battalion task force command post. The battalion task force provides a liaison officer and messenger to the brigade.

ROAD MARCH PLANNING FACTORS

An understanding of certain march terms is necessary for the planner to develop detailed movement plans. These terms, together with basic factors of distance, rate,

and time, are transformed into movement formulas. Formulas are applied to known data to derive information necessary to prepare a time schedule. The time schedule is used to regulate departures and arrivals of march elements.

Time and Distance Relationship. Relationships between time and distance are the basis for march planning. The planner must determine how far the column is to travel (distance) and how long it will take to make the move (time). He must know the space (length of column) the column will occupy on the route. He must also include in his computations the safety factor of distance (road gap) or time (time gap) which must separate march columns and their elements. Each term used for distance has its corresponding term for time. The length of a column in kilometers has an equivalent pass time in minutes; the road distance, kilometers or miles, has a corresponding time distance. The relationship between time and distance is shown below.

Distance Factors:

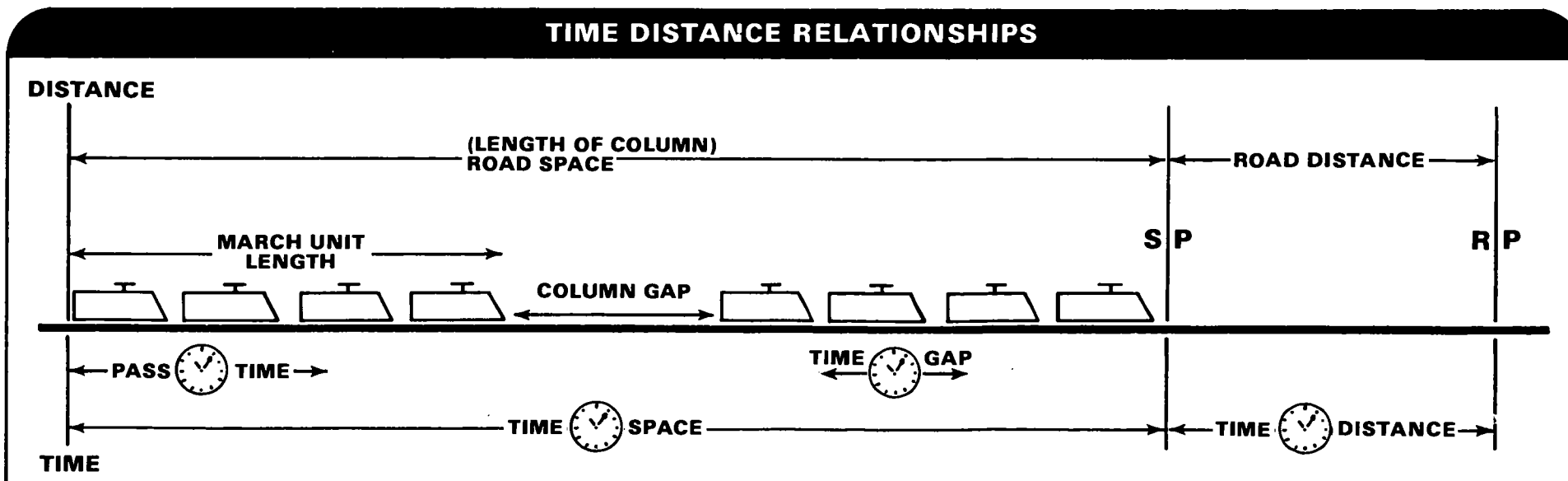
Vehicle distance is spaced between two consecutive vehicles of an organized element of a column.

Column gap is space between two organized elements following each other on the same route. It can be calculated in units of length or in units of time as measured from the rear of one element to the front of the following element.

Traffic density is the average number of vehicles that occupy 1 mile or 1 kilometers of road space, expressed in vehicles per mile (VPM) or vehicles per kilometer (VPKM).

Length of a column is the length of roadway occupied by a column, including gaps in the column, measured from front to rear, inclusive.

Road gap is distance between two march elements. It is the length aspect of column gap, and since it is more significant when the column is moving than when it is halted, it becomes a factor of time rather than distance.



Rate Factors:

- **Speed** indicates actual rate of speed of a vehicle at a given moment as shown on the speedometer (in kilometers per hour (KMPH) or miles per hour (MPH)).
- **Pace** is regulated speed of a column or element, set by the head vehicle, to maintain the prescribed average speed.
- **Rate of march** is average number of miles or kilometers traveled in any given period of time, including short periodic halts and other short delays. It is expressed as miles or kilometers in the hour.

Time Factors:

- **Arrival time** is when the head of the column arrives at a designated point.
- **Clearance time** is when the tail of a column passes a designated point.
- **Completion time** is when the last vehicle of a column passes the release point.
- **Extra time allowance (EXTAL)** of 1 minute per 25 vehicles is always allotted above the calculated pass time within a column moving under one identification serial number. In a column where the number of vehicles is over 600, the EXTAL will be 2 minutes per 25 vehicles. A serial of less than 25 vehicles is not allotted any extra time. EXTAL is equitably added to march unit pass times within a serial.
- **Pass time (PST)** of a column is actual time between the moment the first vehicle passes a given point and the moment the last vehicle passes the same point.
- **Road clearance time** is total time a column requires to travel over and clear a section of road. Road clearance time equals time distance plus column pass time.

- **Time distance (TDIS)** is time required to move from one point to another at a given rate of march. It normally represents the movement of the head vehicle of the column from the start point to the release point.
- **Time gap** is time measured between rear and front of successive vehicles of elements as they move past any given point. It is the time aspect of column gap and may also be the conversion of road gap to time. There are no prescribed standard gaps. These depend on the size of serials and march units, the time available for the movement, and the tactics required for protection against air and nuclear attack.

APPLICATION OF MOVEMENT FORMULAS

Distance, rate, and time are the basic factors for movement computations. If two of these factors are known, the third may be easily found by dividing or multiplying one by the other.

- Rate is determined by dividing distance

$$\text{by time} - R = \frac{D}{T}$$

- Distance is found by multiplying rate by the time - $D = R \times T$

- Time is calculated by dividing distance

$$\text{by the rate} - T = \frac{D}{R}$$

The march planner must determine Pass Time, Time Distance, Arrival Time, and Completion Time:

- **Pass Time.** PST is calculated by dividing total-number-of-vehicles-multiplied-





by-60 by vehicle-density-multiplied-by-speed. To this figure are added EXTAL (see below) and time gaps between march elements. This formula may be used to quickly calculate pass time for an entire serial or march column.

Pass time formula:

$$\text{PST} = \frac{\text{No of Vehs} \times 60}{\text{Density} \times \text{Speed}} + \frac{\text{No of Vehs}}{25} + \text{Time Gaps (Min)}$$

Example. Determine PST of a *serial* of 150 vehicles organized into 6 march units of 25 vehicles each, traveling at a speed of 24 kmph, with a density of 15 VPKM, and using a 2-minute time gap between march units.

$$\text{PST} = \frac{150 \times 60}{15 \times 24} + \frac{150}{25} + (2 \times 5) = \frac{9000}{360} + 6 + 10 = 25 + 6 + 10$$

$$\text{PST} = 41 \text{ minutes}$$

- Notes. 1. Round off fractions of minutes to next higher minute.
2. EXTAL is allocated on the basis of 1 minute per 25 vehicles added to serial pass time. EXTAL is equitably added to pass time of each march unit in the serial.

A pass time table (see pg H-13), together with the extra time allowance table, simplifies march planners' mathematical processes. To prepare the time schedule for a *serial*, it is a simple process to determine PST for any march unit regardless of number of vehicles, traveling speed, or column density. EXTAL is then added to calculated PST to determine total PST.

PST for a serial is determined by adding march unit pass times together, including time gaps between march units. Examples are shown in the explanation at the bottom of the tables.

Time distance formula:

$$\text{TDIS} = \frac{\text{Distance (miles or km)}}{\text{Rate of march (mih or kmih)}}$$

Example. Determine TDIS of a serial traveling 135 kilometers at a speed of 24 kmph (rate of march 20 kmih).

$$\text{TDIS} = \frac{135 \text{ (km)}}{20 \text{ (kmih)}} = 6.75 \text{ hours} \qquad \frac{.75 \text{ (fraction)}}{45.00 \text{ (minutes)}} \times 60 \text{ (minutes)}$$

TDIS = 6 hours and 45 minutes

Time Distance. Time distance is determined by dividing distance to be traveled by *rate of march* (see the TDIS table, page). TDIS *does not* include time for long delays or extended scheduled halts.

A *time distance* table is a valuable tool to the march planner. It provides a listing of factors used to calculate time required to travel certain distances at specified vehicular speeds. Travel rates are expressed in vehicular speeds and corresponding rates of march. Travel factors are derived from rate of march, which includes time for short periodic halts and other minor delays that might occur.

TIME DISTANCE TABLE

Speed Miles/Kilometers per Hour	Rate of March Miles/Kilometers in the Hour	Minutes to Travel 1 Kilometer	Minutes to Travel 1 Mile
10 mph 16 kmph	8 mih 12 kmih	5	7.5
15 mph 24 kmph	12 mih 20 kmih	3	5
20 mph 32 kmph	16 mih 25 kmih	2.4	3.75
25 mph 40 kmph	20 mih 32 kmih	1.84	3
30 mph 48 kmph	25 mih 40 kmih	1.5	2.4
35 mph 56 kmph	30 mih 46 kmih	1.3	2
40 mph 65 kmph	33 mih 53 kmih	1.13	1.8

This table provides the time required to travel 1 kilometer or 1 mile while using specified march speeds. The travel times are calculated based upon rates of march (miles/kilometers in the hour) and include time for scheduled short halts and time lost due to road and traffic conditions. The time for long halts must be added to the total travel time. Multiply the total distance to be traveled (miles or kilometers) by the travel time factor for 1 mile or 1 kilometer for the designated speed.

Example: Determine TDIS for a column traveling 310 kilometers at a speed of 24 kmph. Multiply 310 (km) x 3 (min) = 930 minutes. Convert 930 minutes to 15 hours and 30 minutes.

Note. Fractional parts of an hour are converted to minutes by multiplying the fraction by 60 and rounding off to the next higher minute.

ARRIVAL TIME (AT). In march planning, the release point is normally designated as the terminal point of movement. Arrival time at the release point is determined by adding time distance and any long scheduled halts to the start point time.

Example. Determine arrival time for a serial with a start point time of 0800 hours, time distance of 6 hours and 45 minutes, and

a scheduled halt of 1 hour.

	Hours	Minutes
SP Time	08	00
Time Distance	6	45
Scheduled Halt	1	00
	15	45
Arrival time is 1545 hours.		

PASS TIME TABLE (SINGLE MARCH UNIT)

NUMBER OF VEHICLES IN MARCH UNIT	PASS TIME (MINUTES AND SECONDS)																							
	16 KMPH—10 MPH				24 KMPH—15 MPH				32 KMPH—20 MPH				40 KMPH—25 MPH				48 KMPH—30 MPH				56 KMPH—35 MPH			
	INTERVAL—METERS				INTERVAL—METERS				INTERVAL—METERS				INTERVAL—METERS				INTERVAL—METERS				INTERVAL—METERS			
	25	50	75	100	25	50	75	100	25	50	75	100	25	50	75	100	25	50	75	100	25	50	75	100
	30 VPK	15 VPK	12 VPK	10 VPK	30 VPK	15 VPK	12 VPK	10 VPK	30 VPK	15 VPK	12 VPK	10 VPK	30 VPK	15 VPK	12 VPK	10 VPK	30 VPK	15 VPK	12 VPK	10 VPK	30 VPK	15 VPK	12 VPK	10 VPK
1	.08	.15	.19	.23	.05	.11	.13	.15	.04	.08	.10	.12	.04	.08	.08	.09	.03	.05	.06	.08	.03	.05	.06	.06
2	.10	.30	.38	.45	.11	.20	.26	.30	.08	.15	.19	.23	.08	.15	.15	.18	.05	.11	.13	.15	.05	.09	.11	.13
3	.23	.45	.57	1.08	.15	.30	.38	.45	.12	.23	.29	.34	.11	.22	.23	.27	.08	.15	.19	.23	.07	.13	.17	.20
4	.30	1.00	1.15	1.30	.20	.41	.50	1.00	.15	.30	.38	.45	.15	.29	.30	.36	.11	.20	.26	.30	.09	.18	.22	.26
5	.38	1.15	1.34	1.53	.26	.50	1.03	1.15	.19	.38	.47	.57	.18	.38	.38	.45	.13	.26	.32	.38	.11	.22	.27	.33
6	.45	1.30	1.53	2.15	.30	1.00	1.15	1.30	.23	.45	.57	1.08	.22	.44	.45	.54	.15	.30	.38	.45	.13	.26	.33	.39
7	.53	1.45	2.12	2.38	.35	1.11	1.28	1.45	.26	.53	1.06	1.19	.26	.51	.53	1.03	.18	.35	.44	.53	.15	.30	.38	.45
8	1.00	2.00	2.30	3.00	.41	1.20	1.41	2.00	.30	1.00	1.15	1.30	.29	.58	1.00	1.12	.20	.41	.50	1.00	.18	.35	.41	.52
9	1.08	2.15	2.49	3.23	.45	1.30	1.53	2.15	.34	1.08	1.25	1.42	.33	1.05	1.08	1.21	.23	.45	.57	1.08	.20	.39	.48	.58
10	1.15	2.30	3.08	3.45	.50	1.41	2.05	2.30	.38	1.15	1.34	1.53	.36	1.12	1.15	1.30	.26	.50	1.03	1.15	.22	.43	.54	1.05
15	1.53	3.45	4.41	5.38	1.15	2.30	3.08	3.45	.57	1.53	2.21	2.49	.54	1.48	1.53	2.15	.38	1.15	1.34	1.53	.33	1.05	1.21	1.36
20	2.30	5.00	6.15	5.00	1.41	3.20	4.11	5.00	1.15	2.30	3.08	3.45	1.12	2.24	2.30	3.00	.50	1.41	2.05	2.30	.43	1.26	1.48	2.09
25	3.08	6.15	7.49	9.23	2.05	4.11	5.13	6.15	1.34	3.08	3.55	4.42	1.30	3.00	3.08	3.45	1.03	2.05	2.36	3.08	.54	1.48	2.14	2.41
30	3.45	7.30	9.23	11.16	2.30	5.00	6.15	7.30	1.53	3.45	4.42	5.38	1.48	3.36	3.45	4.30	1.15	2.30	3.08	3.45	1.05	2.09	2.41	3.13
40	5.00	10.00	12.30	15.00	3.20	6.41	8.20	10.00	2.30	5.00	6.15	7.30	2.24	4.48	5.00	6.00	1.41	3.20	4.11	5.00	1.26	2.52	3.35	4.18
50	6.15	12.30	15.38	18.45	4.11	8.20	10.26	12.30	3.08	6.15	7.49	9.23	3.00	6.00	6.15	7.30	2.05	4.11	5.13	6.15	1.48	3.35	4.28	5.22

EXTRA TIME ALLOWANCE (EXTAL) TABLE (SINGLE MARCH UNIT)

NUMBER OF VEHICLES IN MARCH UNIT	0 to 12	13 to 37	38 to 62	63 to 87	88 to 112	113 to 137	138 to 162	163 to 187	188 to 212	213 to 237	238 to 262
EXTAL IN MINUTES	0	1	2	3	4	5	6	7	8	9	10

The Pass Time Table is used in conjunction with the Extra Time Allowance Table to calculate the pass times for single march units of a battalion task force aerial. The PST Table is based upon the number of vehicles in the march unit (density), the interval between the vehicles, and a specified vehicular speed. The figures in this table are expressed in *minutes* and *seconds*. The Extra Time Allowance Table provides the EXTAL in minutes based upon the number of vehicles (density) in the march unit.

EXAMPLE 1. Determine the PST for a march unit of 29 vehicles at 50-meter intervals traveling at a speed of 40 kmph. Use the 40 kmph—25 mph division of the table and select the 50-meter interval 15 vpk column. Find the PST for 25 vehicles which is 3 minutes. Next, find the PST for 4 vehicles which is 29 seconds. Add the 3 minutes and the 29 seconds, then round to the next higher minute for a total of 4 minutes.

Finally, using the EXTAL Table, determine the EXTAL for 29 vehicles which is 1 minute. Add 1 minute EXTAL to the 4 minutes PST for the march unit pass time of 5 minutes.

To calculate the pass time for a battalion task force serial, add the march unit pass times together and include the time gaps (see page) between the march units. There will always be one less time gap than march units.

EXAMPLE 2. Determine the PST for a serial of four march units, each with a PST of 5 minutes and a time gap of 2 minutes. Add 5 minutes (MU1) + 2 minutes (time gap) + 5 minutes (MU2) + 2 minutes (time gap) + 5 minutes (MU3) + 2 minutes (time gap) + 5 minutes (MU4) = 26 minutes total serial PST.

COMPLETION TIME. Completion time is calculated by adding pass time to arrival time. Completion time may also be determined by adding to start point time, the time distance, pass time, and any long or scheduled halts.

Example 1. Determine completion time for a serial with an arrival time of 1545 hours and a pass time of 41 minutes.

	Hours	Minutes
Arrival time	15	45
Pass time	--	41
	15	86
Completion time is 1626 hours.		
Note. Convert 86 minutes to 1 hour and 26 minutes, then add it to 1500 hours.		

Example 2. Determine completion time for a serial with a start point time of 0800 hours, time distance of 6 hours and 45 minutes, a pass time of 41 minutes, and a scheduled halt of 1 hour.

	Hours	Minutes
SP Time	08	00
Time Distance	6	45
Pass Time		41
Scheduled Halt	1	00
	15	86
Completion time is 1626 hours.		

A movement order is a type of operation order. It contains instructions for movement

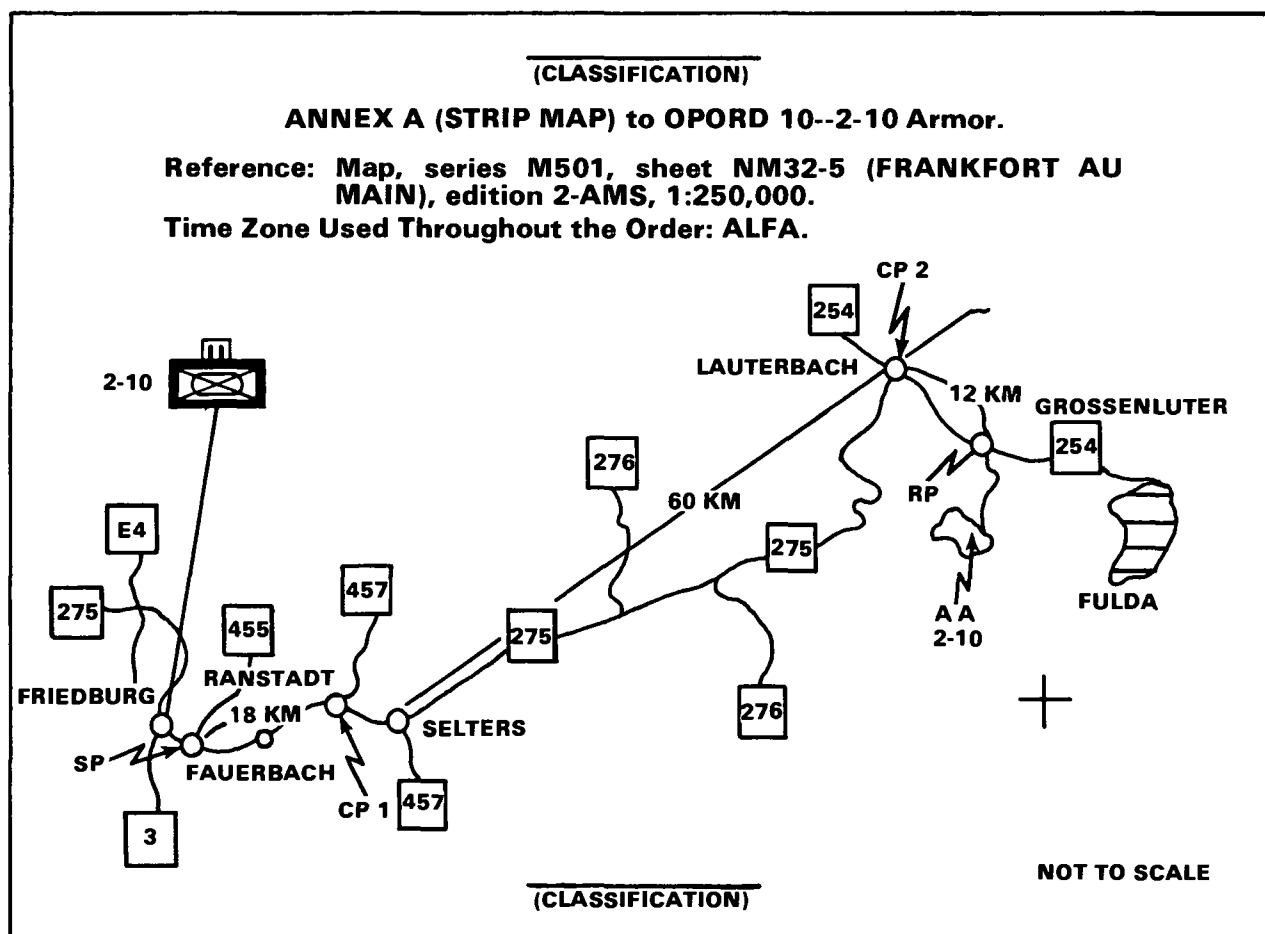
of units from one location to another within a stated time. Preparation of the order normally follows reconnaissance and an estimate of the situation.

Information in the movement order includes situation of friendly and enemy forces, destination, routes, rate of march, maximum speeds, order of march, start point, start point times, details of air and ground alert guards, scheduled halts, vehicle distances, time gaps, release point, critical points, service support, communications, location of the commander during the march, and strip maps. Other details included, as necessary, are route or unit markers to be used, control or checkpoint, and location of road guides. Certain items listed above often

become standard, and units include them in SOP.

Repetition of these items is not necessary in the order.

A *strip map* is a sketch of the route of march and is normally included as an annex to the movement order. Strip maps should be reproduced in sufficient quantities to supply them to key personnel, including vehicle commanders and road guides. The amount of detail depends upon the intended purpose of the strip map and the unit level at which it is prepared. A strip map should contain the start point and release point, restrictions, and critical points with the distance between them. An example strip map is shown.



ROAD MOVEMENT GRAPH

A road movement graph is a time space diagram that visually depicts a movement from start point to release point. It may be used during movement planning stage to avoid conflicts and discrepancies, and prevent congestion along the route of march. It may also be used to prepare and check the road movement table. It shows the relative time and location of the head and tail of each march element at any point along the route; arrival and clearance times of march elements at critical points and restrictions; and displays pass times, time distance, and rate of march. Preparation of a road movement graph is not mandatory; however, it is of great value to the planner simply because it reduces mathematical calculations that would ordinarily be required to prepare march schedules.

Information derived from march formulas or obtained from march tables is transferred directly to the graph. To complete the road movement graph, the planner must have already organized the march column into serials or the serials into march units; determined time distance, arrival time, completion time; and computed pass times for each serial or march unit as appropriate.

ROAD MOVEMENT TABLE

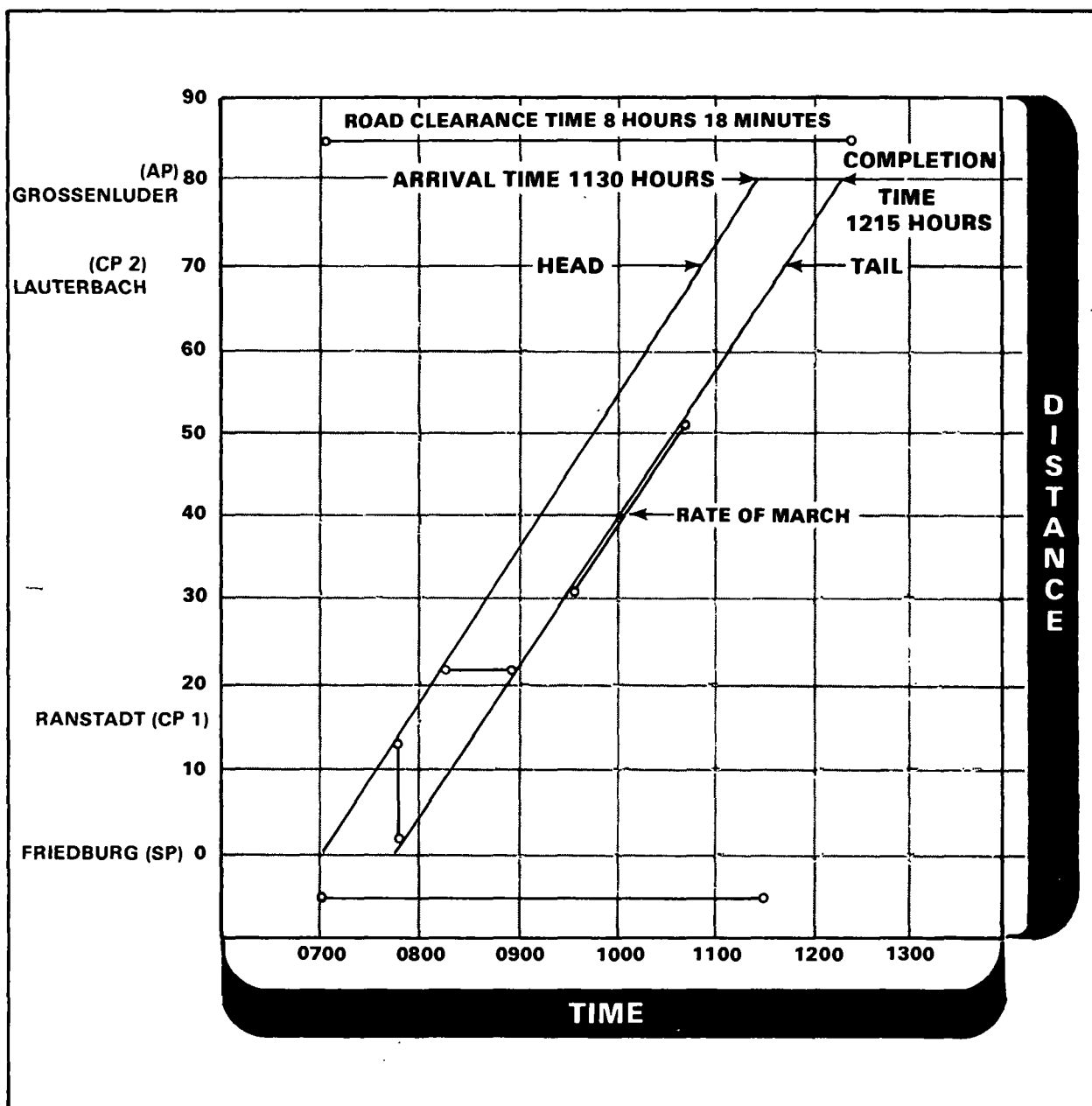
A road movement table is normally an annex to a movement order. It is a convenient means of transmitting to subordinate units time schedules and other essential details of the move. It is particularly useful when the inclusion of such details in the body of the operation order would tend to make the order complicated or unduly long. Road movement tables consist of two parts:

- Data paragraphs reflecting general information common to two or more march elements; and a list of serials or march units, together with all other necessary information arranged in tabular form.

● Data from the road movement graph is transferred to the road movement table. Of particular importance to the march planner are the times at which serials or march units arrive at and clear critical points.

● Other information on the road movement table includes serial or march unit number,

date of move, units involved, number of vehicles, load class of heaviest vehicle routes to be used, and a "remarks" section to reflect any details not covered elsewhere. An example of a road movement table scheduling the move of a battalion-size unit follows.



ROAD MOVEMENT TABLE—EXAMPLE OF ANNEX TO ARMOR BATTALION OPERATION ORDER (A guide only; modification or adjustment is necessary to suit specific cases)

(CLASSIFICATION)

ANNEX B (ROAD MOVEMENT TABLE) to OPORD 10--2-10 Armor

Reference: Map, series M501, sheet NM32-5 (FRANKFURT AM MAIN), edition 2-AMS, 1:250,000.

Time Zone Used Throughout the Order: ALFA.

General Data:

1. Speed: 24 kmph.
2. Rate of March: 20 kmh.
3. Open Column.
4. Traffic Density: 15 VPK.
5. Time Gaps: 2 minutes between MU.
6. Helts: SOP.
7. Route: Annex A, Strip Map.
8. From: FRIEDBURG MAB12810.
9. TO: KLEINLUDER NB385005.

10. Critical Points:
 - a. Start Point: RJ 275 at MAB39754 (FAUERBACH).
 - b. Release Point: RJ 284 at NB383038 (GROSSENLUDER).
 - c. Other Critical Points:
 - (1) RJ 457 and 275 at MA889760 (RANSTADT).
 - (2) RJ 275 and 254 at NB278102 (LAUTERBACH).
 - d. Route Classification: 8 m x 60.
11. Main Routes to SP: Hy 3 to Hy 275.
12. Main Routes from RP: Unnumbered secondary routes.

March Unit No.	Date	Unit	No. of Veh	Load Class Hv Veh	From	To	Route	Route to SP	Critical Points			Route from RP	Remarks
									Ref	Due (hr)	Clear (hr)		
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)
Qtr Party	4 Aug	S1, Comm Plt, HHC XO, Spt Co XO, Co A, Co B, Co C	7	14	(8 above)	(9 above)	Strip map	(11 above)				(12 above)	Move by infiltration.
Recon Party	4 Aug	Scout Plt	10	11	(8 above)	(9 above)	Strip map	(11 above)				(12 above)	Move by infiltration.
MU 1	4 Aug	Co A	25	50	(8 above)	(9 above)	Strip map	(11 above)	SP CP1 CP2 RP	{ 0700 0751 1048 1130	{ 0706 0757 1054 1138	(12 above)	Det: 1 1/4-ton qtr pty, sup trk to bn tns. Atch: 1 CI III trk, 1 aid/evac veh. PST: 6 minutes.
MU 2	4 Aug	HHC (-) Bn HQ Sec, HQ Tl Sec, Co HQ, Comm Plt, Co Maint	21	50	(8 above)	(9 above)	Strip map	(11 above)	SP CP1 CP2 RP	{ 0708 0759 1056 1138	{ 0713 0804 1101 1143	(12 above)	Det: 2 1/4-ton and 1 1/4-ton qtr pty. Atch: 1 CI III trk. PST: 5 minutes.
MU 3	4 Aug	Co B	25	50	(8 above)	(9 above)	Strip map	(11 above)	SP CP1 CP2 RP	{ 0715 0806 1103 1145	{ 0721 0812 1109 1151	(12 above)	Det: 1 1/4-ton qtr pty, sup trk to bn tns. Atch: 1 CI III trk, 1 aid/evac veh. PST: 6 minutes.
MU 4	4 Aug	Spt Co (-) Co HQ, Maint Sec, AVLB Sec, Gnd Survi. Sec, Redeye, Mtr Plt	28	57	(8 above)	(9 above)	Strip map	(11 above)	SP CP1 CP2 RP	{ 0723 0814 1111 1153	{ 0729 0820 1117 1159	(12 above)	Det: Sct plt to recon pty, 1 M113 to qtr pty. Atch: 1 CI III trk. PST: 6 minutes.
MU 5	4 Aug	Bn Tns, Spt Plt (-) Med Plt (-)	20	15	(8 above)	(9 above)	Strip map	(11 above)	SP CP1 CP2 RP	{ 0731 0822 1119 1201	{ 0738 0827 1124 1206	(12 above)	Det: 8 CI III trks, 4 aid/evac vehs. Atch: 3 co sup trks. PST: 5 minutes.
MU 6	4 Aug	Co C	25	50	(8 above)	(9 above)	Strip map	(11 above)	SP CP1 CP2 RP	{ 0738 0829 1128 1208	{ 0744 0835 1132 1214	(12 above)	Det: 1 1/4-ton qtr pty, sup trk to bn tns. Atch: 1 CI III trk, 1 aid/evac veh. PST: 6 minutes.
Trail Party	4 Aug	Maint Plt	11	55	(8 above)	(9 above)	Strip map	(11 above)				(12 above)	Move by infiltration. Atch: 1 CI III trk, 1 aid/evac veh.

(CLASSIFICATION)

- Notes.
1. Only the minimum number of headings above should be used. Any information common to two or more movement numbers should be included under General Data paragraphs. (Columns (f), (g), (h), (i), and (m) could have been omitted in this example.)
 2. Since the table may be issued to personnel concerned with control of traffic, the security aspect must be remembered. It may not be desirable to include dates or locations.
 3. If the table is issued by itself, and not as an annex to a more detailed order, the table must be signed or authenticated in the normal way.
 4. Critical point is defined as "a selected point along a route used for reference in giving instructions." It includes start points, release points, and other points along a route where interference with movement may occur or where timings are critical.
 5. The movement number (column (e)) identifies a column (or element of column) during the whole of the movement.
 6. If an annex has the same distribution as an operation order, it is not necessary to include the headings shown in this example.
 7. To obtain due times for MU1, transfer directly from road movement graph or calculate using time distance table and strip map.
 8. To obtain clear times, add MU pass time to due time.
 9. To complete the schedule for successive march units, add pass time plus time gap to due time. (Example: PST of MU 1 which is 6 minutes plus time gap between MU which is 2 minutes equals 8 minutes. Add the 8 minutes to the 0700 SP due time of MU 1 to obtain the SP due time for MU 2 which is 0708.

APPENDIX I

Air Defense

OVERVIEW

THREAT AIR FORCES WILL BE CAPABLE of operating over the battlefield from time to time and will be able to attack US Army ground forces. Even though the battalion task force is operating under the protective umbrella of air defense artillery units, for close-in protection it must depend on passive measures, small arms fire, and its organic Redeye section. A Vulcan platoon or section may occasionally be attached; this is particularly likely when the battalion task force is one of the key elements in an attack or is responsible for defending a critical asset like a bridge.

PASSIVE AIR DEFENSE

Enemy pilots must be able to see and identify a target in order to attack it. The effectiveness of high-performance aircraft is greatly reduced when ground units take full advantage of terrain for concealment and cover. The battalion task force should:

- When stopped, occupy positions which offer natural cover and concealment.

Camouflage vehicles that are exposed. When moving, travel by covered and concealed routes.

- Dig in dismounted positions as well as camouflaging them. If vehicles must occupy positions visible from the air, improve cover by scooping a hole or building up protection on the sides, or both.

CONTENTS

	PAGE
OVERVIEW	I-1
PASSIVE AIR DEFENSE	I-1
SMALL ARMS FOR AIR DEFENSE	I-2
THE BATTALION TASK FORCE AIR DEFENSE SECTION (REDEYE)	I-2
USE IN OFFENSE AND DEFENSE	I-2
AIR DEFENSE (REDEYE) TEAMS OPERATE MOUNTED OR DISMOUNTED	I-3
OPERATIONS DURING PERIODS OF LIMITED VISIBILITY	I-3
VULCAN	I-4
COMMAND CONTROL	I-4

- Disperse vehicles as much as possible, not only to make detection difficult, but so that, if detected, a single aircraft on a single pass can only attack a single vehicle.

- Wipe out, as far as possible, track marks made when moving into position.

- If moving when an enemy aircraft attacks, turn vehicles 90 degrees to the direction of attack—the attack is normally parallel to the movement of the convoy—and seek cover and concealment. This is a quick way to get vehicles out of the line of fire.

- Require air guards on each vehicle or in each position. Rotate the responsibility since scanning for long periods dulls spotting ability.

- Establish an air warning system in the SOP. Include both visual and audible signals.

SMALL ARMS FOR AIR DEFENSE

The firepower of the task force's machineguns and rifles—directed at an attacking aircraft in a concerted manner—is, in itself, a formidable air defense system. The small arms air defense system in a mech-heavy task force includes approximately 108 .50-cal machineguns, 63 M60 machineguns, and 558 M16 rifles.

Use of small arms against attacking aircraft is described in detail in TC 23-44, *Small Arms Air Defense Against Air Attack*, and in Appendix I, FM 71-1, *Air Defense*.

THE BATTALION TASK FORCE AIR DEFENSE SECTION (REDEYE)

The air defense section of the combat support company is organized with a section headquarters and five Redeye teams. Each team consists of two men and a basic load of six weapons. One man is designated as gunner, but either man can launch missiles.

The battalion task force area of operations will often be too large to be covered completely with five teams. Therefore, the commander must establish priorities for protection based upon the importance and vulnerabilities of various elements in the situation at hand. The air defense section leader provides advice on how to best protect task force elements not already covered by divisional or corps units. Air defense teams can be employed in several ways:

In general support of the battalion task force with priorities of protection as directed by the commander.

Some teams in direct support of company teams, the remainder in general support.

Some teams attached to company teams, the remainder in general support. In rare cases all five air defense teams may be attached or placed in direct support of maneuver units. Employment is based upon the considerations of which method provides the best protection according to established priorities and which method provides the best control of air defense weapons. Whatever method is used, air defense teams should operate with or near the unit, element, or facility they are defending, but should also remain responsive to the air defense section leader for purposes of fire control. A Redeye team moves when the company team moves, but stays in communication with the air defense section leader.

USE IN OFFENSE AND DEFENSE

In offensive operations, the attacking teams generally receive first priority. All company teams are high priority units; tactical operations center and trains may have lower priority. A typical arrangement would be to place the section in general support with priorities in sequence of Teams A, B, C, TOC, and trains. The section leader would instruct one firing team to move with each. During a tactical road march or

movement to contact, there should be a Redeye team near the front of the battalion task force and one near the rear with others evenly spaced throughout the unit.

In defensive operations, the reserve, if any, may receive first priority. Other priorities are similar to those in offense. If the battalion task force is defending a particularly wide and deep area, a typical arrangement would be to attach one Redeye team to each of three company teams while the section (minus) protects the tactical operations center and trains. If one company team is blocking or retaining a piece of key terrain, two Redeye teams might be attached. In this case the TOC and trains would rely on Redeye team for protection. If the probability of an airborne or airmobile attack is high, firing teams should cover potential landing zones. Air defense weapons should locate to engage enemy aircraft attacking at a high angle, or attacking along low avenues of approach such as rivers, valleys, and mountain passes.

AIR DEFENSE (REDEYE) TEAMS OPERATE MOUNTED OR DISMOUNTED

Redeye teams are truck-mounted. When a Redeye team is operating with a company team, the company team commander will usually mount the team in a track, thus, it can move with the company team and have the same armor protection. Teams normally dismount when conducting a firing sequence to limit hazard to personnel and vehicles.

Redeye teams may operate dismounted to accompany dismounted infantry through difficult terrain. When this is done, the team takes its radio and two or three weapons and deploys as required to defend the dismounted element. It protects a dismounted assault force from positions which provide for best coverage of the area where the assault is to go in. It is important that Redeye team positions be covered from small arms fire.

Whether operating mounted or dismounted, one of the most important things a Redeye team chief must do is to position his team where it can best protect the defended unit. Because gunners must visually identify aircraft as either friend or foe, there are special siting considerations. Positions should be selected on a relatively high ground for good all-around observation. Also, the area surrounding the gunner must be clear of personnel and equipment for a distance of 13 meters to provide safety from the weapon's backblast.

Once fired, the missile has a highly visible signature that provides an enemy pilot a direct bearing to the gunner's position. To survive, gunners should move immediately after firing.

The following additional considerations should guide Redeye team chiefs when preparing for combat operations:

- Prepare for action immediately upon arriving at the position area.
- Reconnoiter as necessary and select individual firing positions.
- Prepare individual firing positions.
- Establish local security; stay in contact with other friendly elements in the area.
- Select and prepare alternate and supplementary firing positions.
- Prepare a position sketch indicating gunner location(s) and zone of coverage, and pass it to the AD section leader.
- Establish wire communications in accordance with unit SOP.
- Improve primary firing position.

OPERATIONS DURING PERIODS OF LIMITED VISIBILITY

Redeye gunners must visually acquire enemy aircraft. Although night vision devices assist Redeye gunners, Redeye is not

as effective at night as during the day. Bad weather also degrades Redeye capabilities. Soldiers of the defended unit acting as air guards can assist Redeye teams in acquiring targets at night.

VULCAN

In some circumstances a Vulcan section (two weapons) or a Vulcan platoon (four weapons) may provide air defense support to the battalion task force. These Vulcans are part of the division Chaparral Vulcan battalion. There are six platoons of Vulcans (total of 24 weapons) in the division.

The Vulcan, because of its mobility and ability to fire on the move, minimum preparation time, and head-on capability, is an excellent air defense weapon for defending a maneuver force. Chaparrals are more suitable for defense of relatively static assets and probably will not be directly supporting a task force.

The Vulcans should be employed in pairs and sited not more than 1,000 meters apart for mutual support. The weapon has a range of 1,200 meters. The Vulcan sections should be positioned on or near the defended asset, forcing the attacking aircraft to fly directly at the Vulcan to make a strike. This provides the best target for the Vulcan.

When the TF is moving by bounds, the Vulcans are normally sited with the overwatching element. Because the Vulcan is "thinskin," it should not normally be part of the vanguard of an attack.

The air defense artillery Vulcan platoon leader or section leader will advise the TF commander on the most effective use of their Vulcans.

COMMAND CONTROL

Air defense fires are controlled using "hostile criteria" (determining type of aircraft and whether that type is friend or foe) and weapons control status established

by higher headquarters. Redeye team leaders and Vulcan platoon/section leaders are responsible for deciding whether an aircraft is hostile by visual observation. Once identified as hostile, engagement is controlled by the weapons control status.

Weapons control status categories are:

● **Weapons Free.** May fire at aircraft not positively identified as friendly.

● **Weapons Tight.** Fire only at aircraft positively identified as hostile according to announced hostile criteria.

● **Weapons Hold. DO NOT FIRE** except in self-defense.

In order to permit friendly aircraft to operate in a hostile air environment, air space management elements at division or corps sometimes establish "safe corridors."

For example:

"Weapons tight except weapons hold 1300-1330 for jet aircraft westbound over Area A" permits continued engagement of hostile aircraft, but provides special protection for friendly westbound flights of jets expected between 1300-1330 hours.

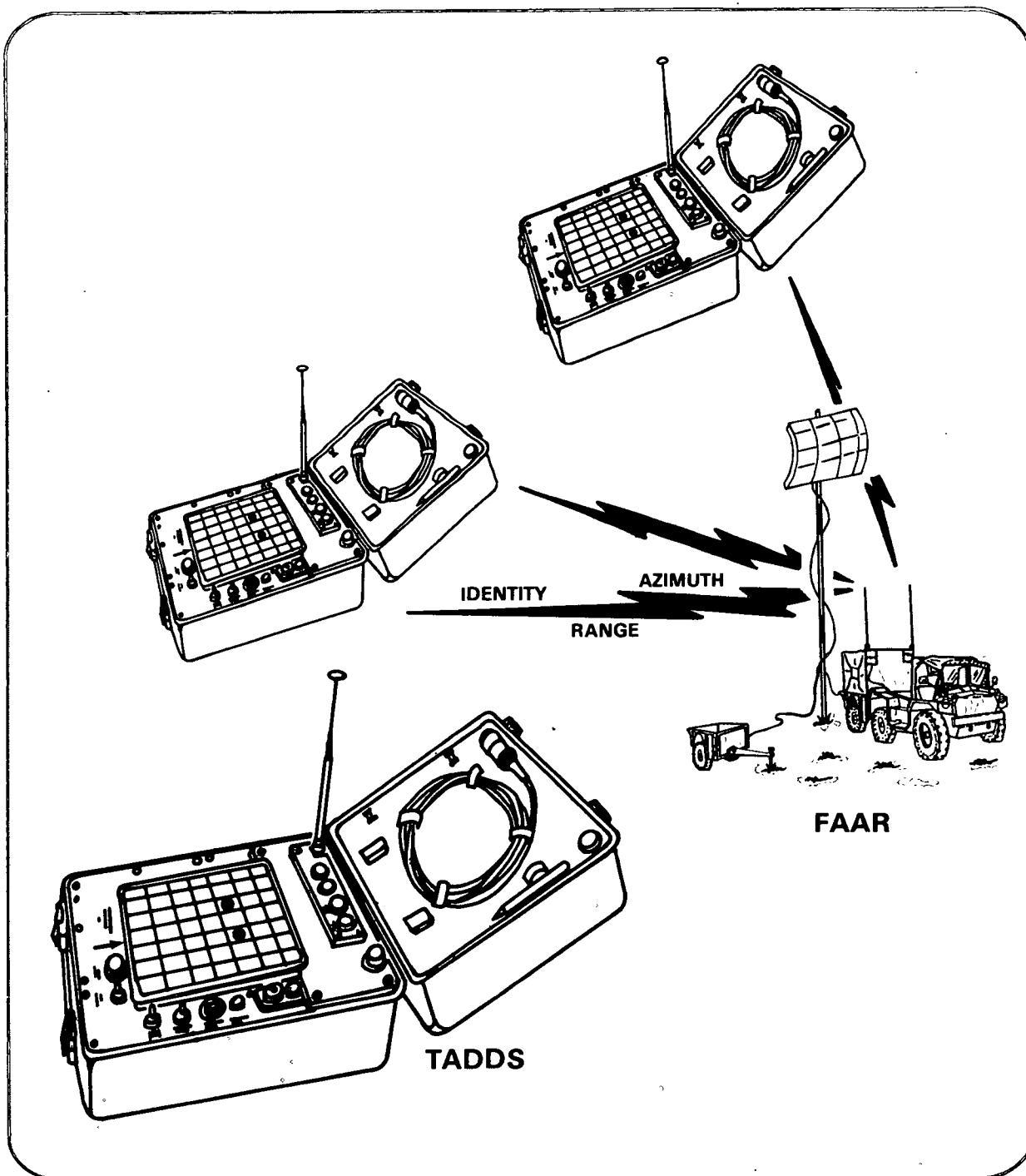
Early warning of enemy air attack is most often provided by the divisional air defense battalion. Normally, the probability of attack is described using one of three conditions:

RED—attack imminent or in progress.

YELLOW—attack probable.

WHITE—attack not probable.

Redeye teams operate in the AD section command net. The section headquarters also monitors the battalion task force command net and the divisional AD battalion command net.



A target alert data display set (TADDS), found in the section headquarters and in each Redeye team, is tied into a forward area alerting radar (FAAR). This link provides early warning information concerning aircraft operating in the area and tentative identity (friendly or unknown).



APPENDIX J

Antitank Platoon

OVERVIEW

THE COMBAT SUPPORT COMPANY of a mechanized infantry battalion has an antitank platoon. It consists of a platoon headquarters and six antitank sections. Each section has two squads, each equipped with a heavy antitank weapon.

The antitank platoon can be employed in one of two ways:

- The task force commander can keep the antitank platoon or portions of it under his own control in general support of the task force. This could be a workable option when only a single narrow armor avenue of approach into the task force area exists.
- Normally, the task force commander will attach TOW sections directly to the company teams. This arrangement aids the integration of TOW fires with other antiarmor weapons (e.g., tanks, Dragons, and LAWs).

The commander's estimate determines the distribution of TOW, by weapons or sections. In fact, in active defense it is one of his major decisions. Obviously, the greater number of TOW must be assigned to the company team covering the most likely or most dangerous armor approach.

The task force commander should consider the deployment of the antitank platoon headquarters as well. One option is to send the antitank platoon leader to the company team which is assigned the largest share of TOW resources. The antitank platoon leader can assist the team commander by reconnoitering for TOW weapons sites and insuring their fires are coordinated with other antiarmor weapons. Finally, he can coordinate TOW fire control during the engagement phase. The antitank platoon sergeant may be assigned a similar mission and perform similar functions with another company team. The most experienced section leader can then be assigned to a third company team.

In the defense, an alternative mission for the platoon leader and platoon sergeant is the coordination of TOW squad emplacement and engagement **between** squads attached to different company teams. In this role, they integrate target planning and engagement on avenues of approach that can be covered by squads attached to different teams.

COMBAT OPERATIONS

In the **offense**, TOWs are best employed with overwatch elements due to their long-range engagement potential and vulnerability. Unless the terrain is extensively open, this overwatch role is most efficiently accomplished by attaching TOW to the teams. Occasionally, TOW can be attached to the scout platoon when it is screening a particularly dangerous flank. Depending on the terrain and the number of TOW attached, the team commander may then employ them as an independent overwatch element for his entire team, or attach them to platoons to assist in their own bounding overwatch movement.

In the **defense**, TOWs are usually attached to the company teams occupying battle positions which guard the armor avenues of approach and afford good fields of fire out to

3,000 meters. This will seldom be to mech heavy teams; more often to tank heavy teams. As teams conduct an active defense and move to subsequent battle positions, the task force commander needs to reconsider the distribution of his TOW on the new terrain occupied.

If the scout platoon is initially employed as a screen force forward of the FEBA, the terrain they occupy may be suitable for employment of TOW. The commander should consider reinforcing the platoon with TOW sections and even tank platoons to start the attrition of enemy armor well forward of the FEBA, and deceive the attacker as to the location of the main battle area. In this role, TOW sections should be used as a "hit-and-run" weapon, getting off one or two missiles, and then returning rapidly to their previously prepared positions in the MBA.

In both **offense and defense**, TOW should be employed where its capabilities offset its vulnerabilities. It should not necessarily be employed where tanks and Dragons can do the job and are available in sufficient quantity. If the terrain does not afford suitable fields of fire for all the TOW assigned, this fact should be reported to brigade for redistribution of TOW to other task forces with a greater need. **Don't waste TOW.**

Visibility limitations have a significant effect on TOW capabilities. During darkness, TOW squads must be repositioned closer to the avenues of approach, allowing them to engage effectively with illumination. During fog, TOW will be of little use. Commanders should consider moving them to safer locations from which they can quickly return to primary positions when visibility improves.

For further details of TOW employment, see FM 71-1, **The Tank and Mechanized Infantry Team**, Appendix B.

APPENDIX K

Prisoners of War and Captured Enemy Documents

OVERVIEW

PRISONERS OF WAR (PWs), enemy maps, letters, diaries, and military documents are important sources of combat intelligence. Trained intelligence personnel can quickly produce useful information once they gain possession of written materials or talk to PWs. Since prisoners and materials are usually captured by squads and platoons of front line units, rapid reporting and rapid evacuation are vital. The sooner trained personnel can go to work, the more valuable their information will be.

Rights of Prisoners of War. Rights of PWs have been established by international law. The United States has agreed to obey these laws. Once an enemy soldier surrenders, he must be treated humanely. It is a court-martial offense to physically or mentally mistreat a PW. The senior officer or noncommissioned officer on the scene is

responsible for their legal care. A unit which cannot evacuate a PW within a reasonable time must provide him food, water, and medical treatment. Mistreated PWs and PWs who receive favors are not good interrogation subjects. PWs should not be given comfort items (cigarettes, candy, etc.) before their first interrogation.

CONTENTS

	PAGE
OVERVIEW	K-1
CAPTURED ENEMY DOCUMENTS AND EQUIPMENT	K-3
CAPTURED MATERIEL	K-3

Offensive Operations. During offensive operations, supporting military policemen will normally establish a collecting point on the supply route or in the trains area of the battalion task force. This aids evacuation from task force collecting points.

In fast-moving operations, interrogators may be with forward elements. Interrogation by the battalion task force and subordinate units is limited to information of immediate use, such as location and deployment of antitank weapons and defenses, enemy roadblocks, and presence of enemy tank units. PWs are questioned only briefly on the spot and then evacuated to a division PW collecting point or turned over to other units for evacuation.

Defensive Operations. In defensive operations, evacuation of PWs is normally from the point of capture to the battalion task force PW collecting point and then to brigade or division PW collecting point. As during offensive operations, interrogation within the battalion task force attempts to develop information of immediate tactical value.

Staff Responsibility. The battalion task force S1 prepares and supervises the execution of plans for the collection and evacuation of enemy prisoners of war. He does this in coordination with any supporting military police units. He coordinates with the S2 for PW estimates and for interrogation facilities, and with the headquarters company commander for the operation of PW collecting points. He coordinates with the S4 for transportation to evacuate prisoners and the medical platoon leader for evacuation of wounded prisoners.

Duties of Capturing Troops. Capturing troops disarm, segregate, tag, and search PWs for documents of military value. Documents are tagged to identify them with the PWs from whom taken and evacuated with PWs. Personal effects of a PW are not

taken except on orders of an officer. In this event, a property register is maintained, and signed receipts given each PW for personal items taken. Capturing troops segregate PWs according to rank, sex, nationality, and other appropriate categories, and tag each PW to show time, place, circumstances of capture, and capturing unit. Selective interrogation by PW interrogation teams for immediate information may be undertaken in the forward area. Five basic principles are followed when processing PWs:

1 Search

- Remove all weapons and documents.
- Return to PW personal items of no military value.
- Leave helmet, protective mask, and equipment to protect him from immediate dangers of battle area.

2 Segregate

- Break chain of command. Separate by rank, sex, and other appropriate category.
- Keep the staunch fighter away from those who willingly surrendered.

3 Silence

- Prevent giving orders, planning escape, or developing false "cover stories."

4 Speed

- Speed to rear to remove PW from battle area and to obtain and exploit his information.

5 Safeguard

- Prevent escape and harm.

Before evacuating the PW, the capturing unit attaches a tag to him. The tag may be printed before combat or made out of materials at hand on the battlefield.

For evacuation and interrogation, PWs are first taken to the platoon leader. He assigns guards to take PWs to an area chosen by the

company team commander. If trained interrogators are available, the company team commander asks for information about the local tactical situation. The PW is then evacuated to the battalion task force collection point for further interrogation and evacuation.

CAPTURED ENEMY DOCUMENTS AND EQUIPMENT

Captured enemy documents and equipment are excellent sources of intelligence information.

Documents may be official, such as maps, orders, records, or photographs; or personal, such as letters, diaries, or pay records. If not handled properly, captured items may be lost or delayed until their information is useless. Captured documents and equipment must be evacuated to the next level of command as rapidly as possible. Capturing personnel should tag each captured item. The tag may be printed before combat or made out of materials at hand on the battlefield.

Information contained on the tag helps speed up processing of the captured item and indicates its probable value. If the captured item was found on a PW, prisoner's name is included on the tag.

CAPTURED MATERIEL

The battalion task force S2, in coordination with the battalion task force S4, issues instructions for disposition of captured materiel. It is normally evacuated to a divisional salvage and maintenance collection point. Ammunition and other dangerous items are not moved. Their location is reported to the division ammunition office. Captured medical supplies are evacuated to the battalion medical platoon; the medical platoon leader disposes of them as directed by brigade or division.

PW TAG

DATE/TIME OF CAPTURE _____

PLACE OF CAPTURE (GRID COORDINATES) _____

CAPTURING UNIT _____

CIRCUMSTANCES OF CAPTURE (HOW IT HAPPENED) _____

CAPTURED MATERIEL

TYPE DOCUMENT/EQUIPMENT _____

DATE/TIME CAPTURED _____

PLACE OF CAPTURE (GRID COORDINATES) _____

CAPTURING UNIT _____

CIRCUMSTANCES OF CAPTURE (HOW IT HAPPENED) _____



APPENDIX L

Training The Battalion Task Force

OVERVIEW

THE PRINCIPAL PUBLICATION which sets forth training objectives for the battalion task force is *Army Training and Evaluation Program* (ARTEP) 71-2. The purpose of this appendix is to describe some techniques which can be used by the battalion task force to gain the maximum possible training benefits from the time and resources available.

Train as a Combined Arms Team. To *fight* successfully as a combined arms team, the battalion task force must *train* as a combined arms team. Since the company team is the smallest combined arms team, tank and mechanized infantry companies must cross-attach and train as company teams. All the combat, combat support, and combat service support elements which would normally accompany teams and task forces on combat operations must train with them.

CONTENTS

	PAGE
OVERVIEW	L-1
Train as a Combined Arms Team	L-1
Train to Defeat the Threat	L-2
Train During Periods of Limited Visibility	L-2
Train for Continuous Operations	L-2
Conduct Live-Fire Exercises	L-2
Learn to Survive in the Nuclear and Chemical Battlefield	L-2
Train in a Realistic Electronic Warfare (EW) Environment	L-2
TRAIN THE STAFF AND LEADERS	L-2
Good Training Results From Good Leadership	L-3

Train to Defeat the Threat. Conducting opposing force field training exercises accomplishes three things: it trains teams in Threat tactics; it trains teams to fight forces employing Threat tactics; it trains teams to fight outnumbered. Company teams can do this by maneuvering two platoons against a third platoon. The battalion task force can do this by maneuvering two company teams using Threat doctrine against a third team. The battalion task force commander could request that his parent unit coordinate opposing force support for maneuver against the entire task force.

Train During Periods of Limited Visibility. Threat forces can be expected to attack during periods of darkness, fog, and snow. The battalion task force must *routinely* train during periods of limited visibility—train to defend and attack, to operate just as during periods of unlimited visibility. As a general rule, half of battalion task force training should take place during periods of darkness or other limited visibility.

Train for Continuous Operations. Soldiers must be trained to fight even when fatigued. The battalion task force should conduct continuous field training for periods of three, four, and five days whenever possible. When this is not possible, artificial fatigue can be introduced into training by conducting 24-hour exercises, starting with a move from garrison to the field training area shortly after 2400 hours.

Conduct Live-Fire Exercises. Do this as often as time, ammunition, and available training areas permit. Moving under cover of overhead indirect fire; adjusting indirect fire within a few hundred meters of protected bunkers or buttoned-up armored vehicles; and firing machineguns over the heads of soldiers in trenches accustom soldiers to the battlefield environment and give them confidence in supporting weapons and in

understanding the lethality of modern weapons.

Learn to Survive in the Nuclear and Chemical Battlefield. Train to the standards given in Appendix B, FM 21-40.

Train in a Realistic Electronic Warfare (EW) Environment. The intercept, direction finding, and jamming threats must be realistically injected in training. Actual jamming, using simulators or unit radios, should be used to train radio operators in practical electronic counter-countermeasures (ECCM). Radio nets should be monitored to insure transmissions are brief and do not disclose tactically significant information.

TRAIN THE STAFF AND LEADERS

There is often a tendency in any battalion task force to concentrate on training company teams and neglect training the staff and individual leaders. It is not necessary to wait until company teams are ready to participate in battalion task force exercises before conducting training for leaders and staff.

Staff and leadership training should parallel unit training to that when company teams are ready, the staff and leaders are ready.

Command post exercises in field or garrison can be conducted for the staff and all leaders down to platoon level.

Free-play wargames can be arranged and conducted between battalion task forces.

Tactical Exercises Without Troops (TEWT) can be used to train leaders at any level. They are especially useful for training in such subjects as terrain appreciation and analysis, map reading, and tactics; and by presenting situations

and asking a subordinate leader, "How would you do it?" TEWT can be conducted when the majority of the troops are not available for training due to other commitments. To accurately assess time distance factors, however, limited use of troops, such as one APC representing a platoon, is helpful.

Good Training Results From Good Leadership. Soldiers are strongly influenced by the example and conduct of their leaders. Leaders must live with their soldiers and share their dangers and privations as well as their accomplishments. Good leaders avoid subjecting troops to useless hardships and unnecessary harassment.

Interest in training can be stimulated by discussions initiated by leaders with their

subordinates during breaks in training. Informal discussions increase understanding and add depth to the knowledge of both seniors and subordinates.

Men must be challenged to meet high standards set by leaders; care should be exercised to insure that standards are attainable. Competition promoted between crews or platoons will motivate soldiers to strive for excellence, which then should be properly recognized.

A poorly trained unit is likely to fail in a critical moment, particularly in its first engagements. A well-trained unit is reflected in the outward appearance of its soldiers, in the condition of its equipment, and in its readiness for combat. Most of all, it is a reflection of the officers and non-commissioned officers who are its leaders.

"The best form of welfare for the troops is first-class training."

General Erwin Rommel



APPENDIX M

Functions of the Staff

OVERVIEW

THE PURPOSE OF THE STAFF IS TO RELIEVE the commander of as much of the burden of routine matters as possible. When preparing for operations, it is up to the staff to gather the information which will help the commander make his decisions. Based on the information available to him from the staff and on his own judgment and experience, THE COMMANDER DECIDES. It is then up to the staff to see that the commander's decision is carried out and that necessary support required for an operation is provided to the battalion task force.

The battalion task force operates with a single staff. It consists of the S1, Personnel; S2, Intelligence; S3, Operations; and S4, Logistics. The Modified Table of Organization and Equipment (MTOE) under which a battalion is organized may also designate some battalion officers as special staff officers; for example, the battalion communications platoon leader, the battalion medical platoon leader, and the battalion motor officer.

No two commanders operate alike. The task force commander will use his staff according to his needs, based on the

individual capabilities of each officer. It is important, therefore, that the battalion task force commander inform his staff of how he intends to operate. As soon as possible after assumption of command, he should prescribe staff relationships to himself and to subordinate units, and, most important, to those whom he will look for coordination of staff activities.

Staff officers should remember that their jobs are not only to assist the battalion task force commander, but to assist company team commanders as well, for the company team commander has no staff.

CONTENTS

	PAGE
OVERVIEW	M-1
BATTALION TASK FORCE STAFF OPERATIONS	M-2
STAFF RELATIONSHIPS	M-3

BATTALION TASK FORCE STAFF OPERATIONS

To be successful, the staff must work together. No staff officer can work in isolation and expect to do his job. Each staff officer must actively pursue every scrap of information that will help the commander to see the battlefield and use his combat power. Staff officers continually exchange information with superior headquarters staff officers, subordinate unit leaders, and among themselves. The S2, for example, keeps the entire staff informed about the enemy and terrain over which the battalion task force expects to fight. The S4 informs the S3 when a proposed course of action cannot be logistically supported. Likewise, the S1 must tell the S3 when critical personnel shortages occur so the S3 can recommend priority for assignment of replacements. The S3 keeps the staff informed of the tactical situation so each staff officer can determine what he needs to do to make the operation a success.

The staff works to see the battle as it unfolds, to anticipate requirements for support of the battalion task force, and to get the support necessary to win the battle.

The command sergeant major primarily advises the commander on matters concerning the enlisted ranks. The command sergeant major should not be relegated to the status of an administrator. He is frequently the MOST EXPERIENCED SOLDIER in the task force. A good command sergeant major has his finger on the pulse of the command. He is often the one who first discovers that the commander's decisions and policies are not being carried out in the manner the commander intended. It is also the command sergeant major who first discovers which of the commander's policies are successful and should be continued. The task force commander should establish a close relationship with his command sergeant major. Whenever possible, he should

accompany the commander to his units' locations. While there, he should talk to the troops; spot-check their job knowledge, positions, and equipment maintenance; and feed back his impressions of morale and

proficiency to the commander.

The pages which follow describe the traditional staff relationships as they pertain to the most common tasks accomplished by task forces.

STAFF RELATIONSHIPS

Section I. Personnel

TASK	S1	S4	S2	S3
1. Maintenance of Unit Strength				
a. Loss Estimating.	Maintains a continuous loss estimate, balanced against forecast replacements.		Furnishes anticipated effects of enemy mass-destruction weapons.	Considers impact of anticipated losses on courses of action.
b. Personnel Reports and Records.	Supervises system of records and reports showing status of personnel matters including: strength reports, casualty reports, and personnel requisitions	Considers personnel strengths in planning requirements for logistic operations.		Considers personnel strengths in formulating plans and determining vulnerabilities.
c. Replacements.	Determines requirements; supervises requisitioning procedures; recommends allocations; establishes policies and procedures for processing; plans for movement.	Recommends priority of assignment to combat service support elements when strength is critical; provides logistic support of replacement system.	Recommends disposition of specially trained intelligence personnel.	Recommends priority of assignments when replacements are critical.
2. Personnel Management.	Classifies and assigns personnel.			
Prisoners of War.	Plans for and supervises custody, administration, utilization, and treatment of prisoners of war and and civilian internees.	Provides feeding, emergency clothing, and transportation; and coordinates evacuation.	Estimates the number and capture rate of PWs; insures screening and initial interrogation of selected PWs.	Considers requirements for troop units as guards for large numbers of PWs; coordinates MP support.

TASK	S1	S4	S2	S3
3. Development and Maintenance of Morale.	Exercises staff responsibility for postal, financial, religious, exchange welfare, and legal services; rest and leave.			
a. Decorations and Awards	Recommends policies for decorations and awards; insures that recommendations for awards are made promptly.	Procures decorations as required.		
b. Graves Registration.	Exercises staff responsibility for planning and supervising graves registration activities.	Coordinates transportation.		
4. Health Services.	Develops estimate of injury, sick, and wounded rate for future operations. Recommends policy for evacuation and hospitalization of casualties due to fall-out contamination, and chemical or biological warfare.	Provides additional transportation as required.	Provides S1 with enemy situation and capabilities, characteristics of the area of operations which may affect evacuation or hospitalization plans.	Provides plan of operations and present dispositions for planning for evacuation and hospitalization. Requests attachment of medical units and/or facilities when approved by the commander. Requests Army aviation for evacuation requirements.
5. Maintenance of Discipline, Law, and Order.	Exercises staff responsibility for matters of discipline, law, and order; arranges for courts martial within commander's jurisdiction and desires.	Furnishes statistics on trends of loss or damage to equipment due to carelessness.	Monitors matters of discipline, law, and order for impact on security clearances.	Includes corrective measures in training programs as directed.
6. Headquarters Management.		Coordinates logistic support, including shelter, repair, construction, and maintenance for the headquarters.	Assists S1 and HQ company commander in planning for counterintelligence measures for movement, location, and operation of the headquarters.	Coordinates the general location, time, and conditions of movement of the HQ, and overall defense of the HQ area with HQ company commander.
7. Message Center Operations.				Coordinates the internal distribution of incoming messages and use of motor messengers with the C-EO.

Section II. Intelligence

TASK	S2	S3	S1	S4
1. Collection of Information.				
a. Ground Reconnaissance.	Develops plans for, and coordinates ground reconnaissance.	Designates combat units for reconnaissance, plans reconnaissance in force, coordinates ground reconnaissance with combat patrols and with other combat operations including fires. S3 (air) coordinates air support in area of reconnaissance.		Provides logistic support for reconnaissance activities.
b. Air Reconnaissance (Army Avn).	Originates requests and consolidates and screens requests from other staff elements, agencies, or units.	Coordinates with other operational air missions.		
c. Air Reconnaissance (Supporting Services).	Originates requests for air reconnaissance; consolidates and screens requests from other staff elements, agencies, and units; disseminates results of reconnaissance.	Coordinates with other air missions. Recommends basic and front-line coverage.		
d. Surveillance.	Plans for systematic watch of the battle area. Assigns missions in coordination with S3. Coordinates all surveillance activities. Coordinates EW aspects of radars with C-EO.	Furnishes information on location of own forces and operation plans.		Coordinates controlled equipment requirements.
e. Target Acquisition.	Plans target acquisition in coordination with S3. Assigns collection missions and coordinates collection of target information. Identifies potential targets and disseminates this information to the S3 and teams.	Evaluates potential targets developed by S2; makes general target analysis.		

TASK	S2	S3	S1	S4
f. Prediction of Enemy Nuclear Weapon Fallout	With brigade guidance, estimates effects of the predicted fallout on the area of operations and enemy capabilities; disseminates to staff. Receives information from subordinate, adjacent, and superior units on the Ground Zero (GZ), height of burst, and yield of enemy-delivered nuclear weapons and disseminates to staff and affected units.	Evaluates vulnerability of units to the predicted fallout. Prepares recommendation for revised task organization and alternate tactical course of action, if required.	Uses fallout as a factor in estimating casualties and replacement requirement.	Estimates effect the predicted fallout will have on logistic support and initiates planning to minimize effects. Estimates vulnerability of train areas to predicted fallout and initiates tentative planning as appropriate
g. Technical Intelligence.	Coordinates activities of technical intelligence detachments when attached. Uses technical intelligence in estimates and studies. Disseminates technical intelligence to appropriate parties.	Receives and requests technical intelligence that may affect operations. Assigns elements to secure the detachments.		Assists in evacuation of technical intelligence material
h. Weather Information.	Requests weather information from Brigade S2, disseminates.	Analyzes weather information for effect on operations and training.	Analyzes weather information for effect on health of personnel	Analyzes weather information for effect on logistics activities.
2. Production of Intelligence.				
a. Analyses of Area of Operations.	Disseminates information on area of operations and analyzes the area as required.			
b. Preparation of Intelligence Estimate.	Prepares and disseminates intelligence estimates as required.			
c. Planning for and Distribution of Maps and Map Substitutes.	Prescribes allowances, scales, and types (in coordination with S3/S4).	Recommends type, scales, and distribution.		Provides materials for fabrication of map substitutes. Requests, receives, stores, and issues maps.

TASK	S2	S3	S1	S4
3. Development of Essential Elements of Information (EEI).	Recommends EEI to the commander based on determination of information and intelligence requirements and recommendations of other staff officers. Disseminates approved EEI as specific questions to subordinate units. All staff officers recommend to S2 EEI on enemy capabilities and characteristics of area of operations having major effect on particular area of interest.			
4. Counterintelligence	Plans and supervises implementation of counterintelligence measures to support all operations.	Determines effect on operations. Designates forces, area, equipment, and operations requiring priority measures.		Designates logistics activities requiring priority measures.
5. Training of Unit in Intelligence.	Supervises intelligence training of all subordinate units. Prepares intelligence training programs. Establishes requirements for intelligence training material. Coordinates EW aspects of training with C-EO.	Allocates time and facilities in unit training programs. Integrates with other training.		

Section III. Operations.

TASK	S3	S2	S1	S4
1. Operations, General.	Advises the commander on combat and combat support matters, and on organization and training.	Provides commander and staff with the current intelligence situation. Exercises staff supervision over intelligence and counterintelligence activities.	S1/S4 advise commander and/or S3 on ability to support operations.	

TASK	S3	S2	S1	S4
2. Training.	Prepares and supervises execution of training programs, directives, and orders; supervises the planning and conduct of field exercises. Determines requirements for, procures and distributes, or assigns training aids and facilities. Plans, conducts, and coordinates training inspections and tests.	S1, S2, S4, & C-EO, in conjunction with S3, are responsible for supervision of training of the command in respective area of interest. Provide S3 with recommendations concerning training. Submit requirements for training aids and areas to S3.		
3. Operations.				
a. Operation Estimate.	Based on the commander's planning guidance and information received from other staff officers, prepares operation estimate which culminates in a recommended course of action.	Provides S3 with intelligence estimate and analysis of area of operations.	Informs S3 of capability to support mission, personnel limitations, and may recommend course of action from personnel viewpoint.	Informs S3 of logistics limitations and of capability to support mission, and may recommend course of action from a logistics viewpoint.
b. Tactical Plans.				
(1) General.	Conducts tactical planning to include supervision and coordination of supporting plans. Prepares alternate operation plans as required. Recommends allocation and priorities for personnel, supplies, and equipment, including ASR for combat and combat support units. Establishes prescribed load for combat and combat support units.	Based on commander's guidance, develops EEI. Provides S3 with continuing intelligence and makes recommendations concerning the plan as affected by the changing intelligence.	With S4, advises S3 of limitations in combat service support which may affect the tactical plan; develops plans to provide required combat service support; recommends to S3 allocations and priorities for combat units.	

TASK	S3	S2	S4	S1
(2) Fire Support.	Supervises fire support planning. Reviews fire support plan to insure it is in consonance with command guidance and is compatible with the planned scheme of maneuver or scheme of defense.	Develops list of potential targets for attack by fire support means. Directs collection effort to detect indications of potential targets and to develop detailed target information.		Provides S3 with ammunition supply and location data and logistic delivery capability for consideration in determining employment of fire support. Insures approved fire support plan can be supported, relocates ammunition stocks as needed, or notifies S3 of inability to support the plan and makes appropriate recommendations.
c. Tactical Troop Movements.	In coordination with S4, plans and supervises tactical troop movement.	Advises S3 concerning counterintelligence aspects. Provides information on weather, terrain, and enemy situation.		Receives transportation requirements from S3 and determines allocation of transportation. Determines priority for movement of combat service support units. Exercises supervision over traffic regulation and traffic control.
d. Miscellaneous Activities.				
(1) Signal communications.	Establishes priorities for communications to support tactical operations. Reviews the signal operation plans for communications support of tactical operations. The C-EO develops plan for establishing signal communications.	Coordinates enemy EW threat with C-EO and S3.	S1/S4 submit requirements to S3 for signal communications.	
(2) General Location of Tactical Operations Center (TOC).	In coordination with the C-EO and HQ company commander, selects the general location of the TOC.	Advises on intelligence aspects.		

TASK	S3	S2	S1	S4
e. Execution.	Supervises, coordinates, and integrates combat and combat support operations, making adjustments as required, within authority delegated to him by the commander.	Advise, supervise and support within respective areas of interest.		

Section IV. Logistics

TASK	S4	S3	S2	S1
1. Supply.	Determines supply requirements. Procures supplies by requisition on the supply base of support. Insures proper receipt, storage, and distribution of supplies. Determines method of distribution; insures distribution schedules are effective, insures availability of transportation for distribution; and selects supply routes.	Recommends allocation and priorities for equipment and supplies having an impact on training or tactical mission. Recommends prescribed loads for equipment and supplies pertaining to training tactical mission.	Provides S4 with information of enemy capabilities for interfering with logistic support and of characteristics of area of operations which may affect logistic support. Provides requirements for prisoners and estimated capture rates.	Provides unit strengths and loss estimates to S4 as a basis for logistic support forecast. Provides S4 with estimated number of replacements for determination of equipment and supply.
2. Transportation.	Determines transportation requirements. Coordinates required transportation from assigned and attached transportation assets or from those received from superior headquarters. Consults with S3 to determine allocations and priorities. Provides information and instructions to Spt Plt Ldr regarding transportation. Spt Plt Ldr	Provides S4 with requirements for transportation for training or tactical purposes.	Provides information on the area of operations as it affects the use of transportation.	Provides S4 with requirements on transport of replacements and PWs.

TASK	S4	S3	S2	S1
	prepares transportation plans to meet vehicular requirements. Responsible for administrative movements, to include selection of routes (in coordination with S3), highway regulation, and traffic control.	Coordinates use of routes with S4. May recommend routes be restricted for tactical use only.	Keeps S4 informed of enemy capabilities that may interrupt routes.	Coordinates with S3 for use of military police for traffic control and discipline, law and order enforcement.
3. Services. a. Priorities for Employment.	Prepares general plan for service support to include: selection and allocation of combat service support assets (in coordination with the operations officer); plans for recovery and evacuation of vehicles and equipment; collection and disposition of excess property. Recommends evacuation and repair policies. Recommends amount and type of maintenance training. Provides commander and staff with evaluation of maintenance conditions, an estimate of impact on planned operations, and recommendations for correction or improvement of conditions.	Provides S4 with requirements for combat service support. May recommend priority of maintenance effort.		Submits to the S4 requirements for combat service support.
b. Movement and General Location for Combat Service Support Activities.	Selects general location of support area, designates time of movement of service units; coordinates with supporting activities.		Provides S4 with enemy situation and capabilities affecting location of logistic activities and time of movement.	Coordinates with S4 on general location and time of movement as concerns administrative activities.

TASK	S4	S3	S2	S1
c. Maintenance.	Supervises maintenance program. Coordinates backup support for maintenance beyond the capability of assigned or attached maintenance assets.	Coordinates with S4 for inclusion of maintenance training and supply economy in training program. CEO coordinates COMSEC evacuation, CE org maint, and external support requirements.		
d. Utilities for Facilities.	Coordinates activities pertaining to maintenance and repair of utilities for facilities.			
e. Collection and Disposition of Excess Property Salvage and Captured Materiel	Provides subordinate units with guidance for disposition of excess property salvage and captured materiel. Allocates usable supplies and equipment (coordinates with S3).	May recommend use, allocation, and priority of issue of excess property.	Collection and disposition of captured enemy materiel are the primary staff responsibilities of the S4, but coordination with S2 and technical intelligence personnel is required.	

APPENDIX N

Symbols and Control Measures

OVERVIEW

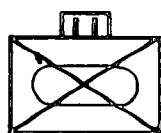
THE FOLLOWING SYMBOLS AND CONTROL MEASURES supplement and clarify those listed in current publications. They have been placed in this manual to provide a convenient reference.

CONTENTS	
	PAGE
OVERVIEW	N-1
SIZE NOTATION/UNIT	N-2
TACTICAL UNIT SYMBOLS	N-2
COMBAT SERVICE SUPPORT SYMBOLS	N-3
CONTROL MEASURES	N-5
WEAPONS AND VEHICLES	N-7
RADAR SURVEILLANCE UNITS OR DEVICES	N-8
SENSOR SYMBOL	N-9
ENEMY SYMBOLS	N-9

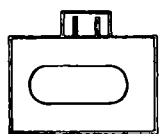
Size Notation/Unit

Size Notation	Unit	Size Notation	Unit
●	Squad		Group, Regiment, or Equivalent
●●	Section	X	Brigade
●●●	Platoon or Detachment	XX	Division
	Company, Battery, or Troop	XXX	Corps
	Battalion or Squadron	XXXX	Army
		XXXXX	Army group

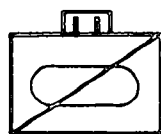
Tactical Unit Symbols



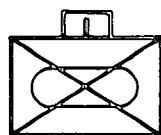
Mech Inf Bn Task Force



Tank Bn Task Force

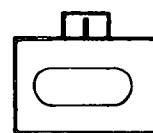


Cavalry Sqdn

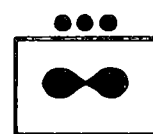


Mech Inf Co Tm

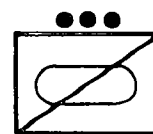
Tank Company Team



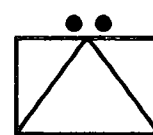
Helicopter Platoon



Scout Platoon
(Mech Inf, Tk Bns, Cav Sqdn)



Antitank Section

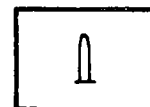


Combat Service Support Symbols



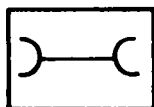
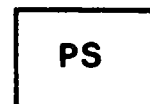
Combat Trains

Ordnance Unit



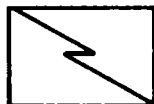
Airfield

Personnel Services and Administration Unit



Repair and Maintenance Unit

Finance Unit



Communications Unit

Aeromedical Evacuation Unit



Medical Unit

Class I Supply Point (Rations)



Transportation Unit

Class II Supply Point
(Clothing & Indiv Equip)



Supply Unit

Class III Supply Point (POL)



Combat Service Support Symbols (cont)



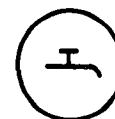
**Class IV Supply Point
(Construction Material)**

Multiple Class Supply Point



**Class V Supply Point
(Ammunition)**

Water Point



**Class VI Supply Point
(Personal Demand Items)**

Maintenance Point



**Class VII Supply Point
(Major End Items)**

Graves Service



**Class VIII Supply Point
(Medical Material)**

Hospital or Aid Station



**Class IX Supply Point
(Repair Parts)**

Evacuation



**Class X Supply Point
(Civil Affairs Items)**

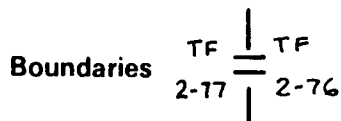
Recovery



Control Measures



Assembly Area



Forward Edge of Battle Area (FEBA)



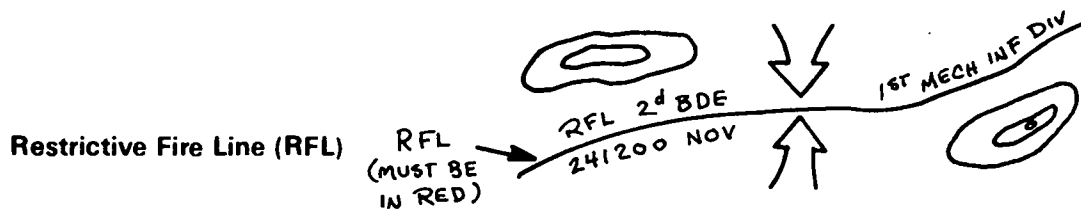
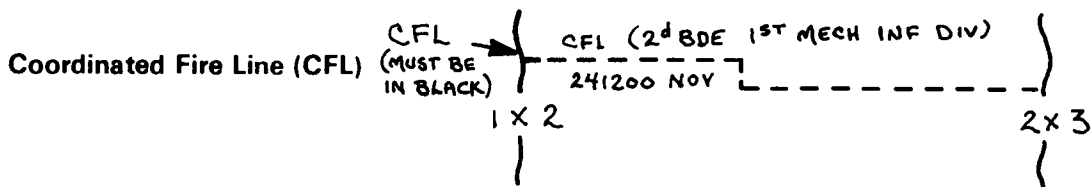
Attack Position

Axis of Advance



LD ~~~~~ Line of Departure (LD)

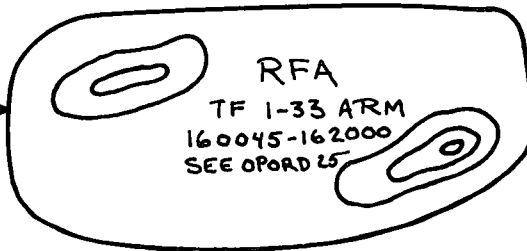
Battle Area



Control Measures (cont)

Restrictive Fire Area (RFA)

RFA
(MUST BE
OUTLINED
IN RED)



Phase Lines



Limit of Advance (LA)



Checkpoints



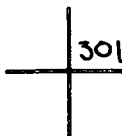
Coordinating Point



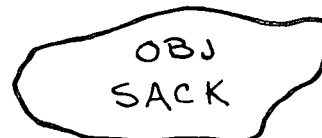
Contact Point



301 Target Reference Point



Objectives



Direction of Attack



Control Measures (cont)

Passage Lanes

Battle Position (Company)



Any Trench System

Proposed Battle Position (Company)

**Weapons and Vehicles**

a. Weapons (Exact caliber, if known, is indicated by placing the appropriate number on the right of the symbol.)

Antitank Weapons:

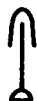
LAW



DRAGON



TOW

Mortars81mm or
smaller82mm to
199mm200mm and
larger

Redeye



Chap/Vulcan

Weapons and Vehicles (cont)

Vehicles



Tank, Light



Tank, Medium



Tank, Heavy

Full Tracked Armored Personnel Carrier:



Light



Medium



Heavy

Armored Reconnaissance Vehicle (Light)



A Five-Ton Cargo Wheeled Vehicle



Obstacles



Minefield



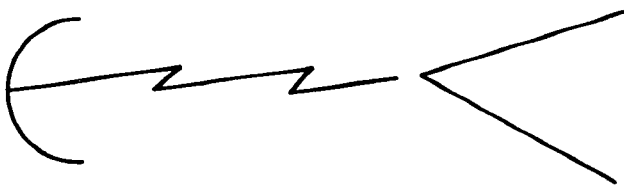
Scatterable Mine
(Artillery Delivered)



Town

Radar Surveillance Units or Devices

Lines indicate assigned area of scan, and juncture of lines indicates radar location.



Sensor Symbol

Remote Sensors (REMS)

**Enemy Symbols**

Enemy unit and tactical dispositions are usually shown in red. When red is not available, the symbol will be inclosed by a second line.

Example: Battle Position



Question marks used in conjunction with an enemy symbol indicate unconfirmed enemy information. No notation is made for unknown information.

Weapons

SAGGER



ADA



SPG-9



120mm Mortar



122mm HOW

Vehicles

Tank



BMP



2



2



2

2



APPENDIX O

**RELEVANT STANDARDIZATION AGREEMENTS
(STANAGS)**

OVERVIEW

This manual is in accordance with the provisions of the following standardization agreements:

TITLE	NATO STANAG	CENTO STANAG	SEATO STANAG	ABCA STANAG
Marking of Contaminated or Dangerous Land Areas	2002	---	---	124
Patrol Reports by Army Forces	2003	---	---	6R
Operation Orders	2014	---	---	17R
Method of Describing Ground Locations, Areas, and Boundaries	2029	---	---	---
Battlefield Illumination	2088	2088	---	108
Fire Coordination in the Land/Air Battle	2099	2099	2099	---
Radiological Survey	2112	---	2112	---



FM 71-2

30 JUNE 1977

By Order of the Secretary of the Army:

BERNARD W. ROGERS
General, United States Army
Chief of Staff

Official:

PAUL T. SMITH
Major General, United States Army
The Adjutant General

DISTRIBUTION:

Active Army, USAR, and ARNG: To be distributed in accordance with DA Form 12-11A, Requirements for The Inf Bn (Qty rqr block no. 79); The Inf Brigade (Qty rqr block no. 80); Tank Units, Platoon, Co, and Bn (Qty rqr block no. 129); The Armored Brigade (Qty rqr block no. 130).

Additional copies can be requisitioned (DA Form 17) from the US Army Adjutant General Publications Center, 2800 Eastern Boulevard, Baltimore, MD 21220.

3000021064



3000021064

PENTAGON LIBRARY

